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ORIGINAL LECTURES.

ARTHRITIS DEFORMANS—CANCER OF THE LIVER.

Abstract of a
Clinical Lecture delivered at Bellevue Hospital.

BY ALFRED L. LOOMIS, M.D.,
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GENTLEMEN: This man comes to us with a history of having been in good health until about one year ago, although for about four years past he has had wandering pains about the joints. He is a man of temperate habits, and has lived in a healthful region, but his work as a farmer and lumberman has involved some exposure to wet and inclement weather. For some time previously to very marked symptoms in his joints, he noticed creaking in them, and swelling around them at night, which disappeared before morning. His mother and brother were similarly affected. The small joints were apparently first involved, and you notice particularly that he says the disease began in the big toe, but that after a short time, the other joints became involved. He was able to continue his work until about one year ago, when he suffered from a very acute attack, in which all the joints became affected; and since that time he has been more or less crippled. I wish you to notice especially that the joints became involved *progressively*—in other words, a joint, after once becoming affected, did not get well, but became steadily worse, until finally there was complete loss of motion. At present, the wrist-joint, although somewhat swollen, is not very tender, and if I grasp it firmly and attempt to move it, there is very slight motion, and some crepitation. I want to impress upon you that one of the earliest and most constant symptoms is this crepitation in the joint, and it is highly important that you should recognize its significance, for it is only in the very early stages of this disease that we can hope to accomplish anything by treatment. During the past year, I have seen two or three persons who, after a general feeling of ill-health, without any distinct rheumatic manifestations, developed this creaking of the joints, which was followed by the characteristic changes in the joints which we find in this case.

Even at a very early period, medicines are powerless to check the progress of this disease, and hence the danger-signal should be promptly recognized, and the appropriate prophylactic measures adopted. This patient had four or five years of premonition, yet the warnings were disregarded, and his habits of life were not changed. The disease is often hereditary, and this man's family history is not at all exceptional. Arterial degeneration does not occur until very late, and in this respect the disease differs from gout. Some physicians speak of this disease as "rheumatic gout," but one might just as well speak of measly-scarlatina, for rheumatism and gout are two distinct forms of disease. Each may appear in the same individual, but not at the same time. The condition we are studying is more correctly designated as *arthritis deformans*. It does not always present the acute symptoms described by this patient, but such symptoms are often present. Cardiac complications are infrequent. As you look at this patient, he seems to be well-nourished, to have a good color, and, in brief, to be in a very good condition; yet he is suffering from an incurable disease, which, when it attacks a joint, pursues its course relentlessly until the joint is permanently destroyed, and there is ankylosis or partial dislocation. This man's knee-joint has not yet become ankylosed, but I can feel the cartilages slipping around in the joint, and the presence of muscular atrophy increases the apparent deformity. There is already distinct creaking in the temporo-maxillary articulations. In some cases the jaws becomes so firmly fixed that the patients have to be fed with a tube.

Now, what is to be done with this man? The most we can promise is, that we may be able to arrest the progress of the disease, if his circumstances will allow of his carrying out the proper course of treatment; although he must understand that he is crippled for life. If the disease is to be arrested at all, it is by an entire change in the processes of his nutrition. It is absolutely necessary that he should be placed in a warm, dry climate, below the frost-line, where he may live most of the time in the open air. His diet must consist largely of milk, and all stimulants except spirits must be avoided. A moderate indulgence in spirits seems beneficial. In conjunction with this line of treatment, arsenic and cod-liver oil are capable of giving marked relief, but by themselves they are useless. If several years ago, this man had gone to a warm climate, and had been provided with the best hygienic surroundings, it is probable that the disease would not have advanced, or, at any rate, to so great a degree. In almost every country town you will find similar cases, which have been treated as cases of ordinary rheumatism until the time for helping them has passed. Please remember that this disease is incurable; that the premonitory symptoms are general tenderness and occasional soreness of the joints, followed by crepitation of the joints on motion. The latter is always suggestive and may enable you to make an early diagnosis. Then is the time, when, by carrying out the mode of treatment which has just been outlined, you may prevent or arrest its development.

CANCER OF THE LIVER.

The next patient tells us that his present disease began after exposure to wet and cold four months ago. He first felt pain in the region of the stomach, then below it, and a few days later, after another exposure, he began to suffer from pain in the left side. which increased

when he lay upon that side. Five or six days later, there was pain on the right side, especially on deep inspiration. The pain is still present, and is increased by motion as well as by inspiration. You notice that while I am talking the pain has become so severe as to cause him to turn a little upon the side. There is also a slight cough, which he endeavors to suppress. He has had no serious illness except an attack of malarial fever about eight years ago. Ten years ago, he had some form of venereal disease, but he has had none of the usual symptoms of syphilis. He began to drink liquor at the age of twenty-two years, but has only occasionally been intoxicated. His children are healthy. During his present illness he has lost flesh rapidly. Examination of the urine shows the presence of albumin and of granular and hyaline casts. His pulse indicates arterial tension, and would lead me to suspect the presence of some forms of nephritis. The temperature in a single instance reached 103°, but generally ranges from 99° to 100°.

Inspection shows a general fulness of the abdomen, an almost entire absence of abdominal respiration, and an enlargement of the superficial veins. The abdominal walls are so tense that palpation can be only imperfectly performed, but there are evidently great tension and tenderness over the upper portion of the abdomen, while the lower portion is yielding and painless. Over the upper portion the sensation to the hand is that of a solid mass of great size, and apparently deeply seated. The edge of the mass feels rounded, and is smooth and not nodular. There is no friction-sound over the enlargement below the free border of the ribs, and on coughing no murmur is heard over the mass. There is dulness along the right nipple-line for more than twice the normal distance, and flatness on percussion below the fifth rib posteriorly. Crepitating pleural friction is heard over the entire posterior part of the chest, but is more marked on the right side. A few œdematous râles are audible, and above the line of dulness the respiratory murmur is distinct. The heart-sounds are normal. There is no œdema of the lower extremities.

A man who has emaciated so rapidly without very high fever has evidently some serious malady, and the great pain, as well as the expression of his countenance, confirms this opinion. In cases of fatty liver the edge of the organ is rounded; in waxy liver it is sharp and well defined. This man has had none of the constitutional symptoms of syphilis, and it would be hardly possible to have advanced visceral syphilis without previous well-marked secondary manifestations. Waxy liver is the most common degeneration caused by syphilis, but there is a form of cirrhosis with gummatous formations which develops after syphilis, and is very closely allied in its symptoms to that seen in alcoholics. This man has not been an excessive drinker, and has not the bronzed hue or the slight yellow tinge which usually accompanies cirrhosis of the liver. Again, cirrhosis of the liver is not often accompanied by a rise of temperature; on the contrary, it is more commonly associated with a subnormal temperature. If this man, then, has cirrhosis it is complicated by some other condition. Hypertrophy and cirrhosis of the liver might account for the enlargement, and an attendant perihepatitis might account for the pain and tenderness. Perihepatitis causes pain in very many conditions of hepatic enlargement. In this way, waxy liver might be accompanied by pain. In abscess of the liver the organ is enlarged and there is generally a point of maximum tenderness. It is accompanied by some fever, and sometimes by jaundice. Usually there is a history of a chill, and sometimes fluctuation is present. Traumatism frequently precedes it, or there may be a localized suppuration involving some portion of the intestinal tract which gives rise to circumscribed hepatitis. The more acute abscesses not infrequently are associated with dysentery. When the abscesses are of slow development, and are not accompanied by very acute symptoms, there may be no assignable cause. If the abscesses are large, as they must be if they exist in this case, the patient would in all probability suffer from chills.

Here, then, is a patient with localized peritonitis, pleurisy, nephritis, and an enlarged liver. The most important question, and the most difficult one to answer is, What has produced this enlargement of the liver? There is undoubtedly a perihepatitis, and an extension of the inflammation from the abdominal cavity through the diaphragm into the pleura. We cannot at present make a positive diagnosis in this case between abscess and cancer of the liver, but I am inclined to think that the disease is cancer.

KOCH'S METHOD OF TREATING TUBERCULOSIS.

A Lecture
delivered in the Jefferson Medical College,
January 8, 1891.

BY SAMUEL G. DIXON, M.D.,
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GENTLEMEN: While in Berlin I had the opportunity of meeting many prominent men who were interested in Koch's discovery and of hearing their opinions concerning it. It may not be out of place, therefore, should I venture to state briefly my impressions regarding Koch's remedy. Here is a diagram on the right side of which you may possibly recognize stained tubercle bacilli in lung tissue, whereas on the left tubercle bacilli, double stained, are represented. When these minute single-celled microorganisms in full vitality enter the animal economy in sufficient number to overcome the army of animal cells whose function it is to devour all intruders, an active destruction of tissue is set up which is very difficult to overcome, unless recognized in its very incipiency. The tubercle bacillus is man's greatest enemy and tuberculosis has robbed more families of happiness than any other disease; but I am ashamed to say that there is not yet a well-endowed bacteriological laboratory in this city of nearly a million inhabitants. Studies such as those of Koch should stimulate rich men to endow laboratories for original research and teaching.

In 1889 I advanced the theory that by a thorough filtering out of tubercle bacilli from tubercular matter we might obtain a fluid which could be so weakened that by systematic inoculations a change might be produced in living animal tissue that would overcome tuberculosis. The announcement of this theory was accompanied by a statement that favorable results had been obtained

in animals so treated. Owing to an unavoidable delay I was unable to push my work to a close. I regret the interruption to my work, for during this time Professor Robert Koch, for whom I have the most profound respect, produced the fluid that I now hold in my hand, which probably contains less débris than any I had obtained at the time when he made his first announcement. About one one-thousandth dilution of this, it is supposed, acts upon tuberculous tissue.

The reagent is, probably, a metabolic product of the tubercle bacillus, the bacilli having been filtered out. With this active principle I am inclined to believe there are glycerin, gelatin, and some salt, probably a salt of gold. How this filtrate acts we do not know, but it may be conjectured that when the bacillus comes in contact with animal tissues it is stimulated to secrete some material which changes the chemical arrangement of the tissues and renders them capable of being absorbed.

The effect on the tissue seems to be an inflammatory one of a degree peculiar to the action of the tubercle bacillus and suited to its existence. If this be an explanation of the process, we may seek to neutralize the secretion of the bacillus and thereby prevent it from acting on the animal tissues; or again we may cultivate the organism on an artificial medium and then isolate in a concentrated form that which breaks up tuberculous tissue. This material when injected into the system which is already the habitat of the tubercle bacillus, meets with the normal secretion of that microorganism which is present in amounts just sufficient to render the tissues suitable for the growth of the bacillus. As soon as the artificial poison is added, the inflammatory condition of the tuberculous tissues becomes greater than that degree suited to the life of the existing microorganisms, the tissue is killed, and with the organisms falls away from the new surface. This is but a theory, for tuberculosis is a chronic disturbance, in which the microörganism is not killed by its own product as we suppose is the case in acute infectious diseases.

Dr. T. Lauder Brunton intimates that the Koch fluid may be a product of other than the tubercle bacillus. He cites the fact that lupus has been seen to shrivel and necrose after an attack of erysipelas or measles, and that peritonitis, supposed to be tubercular, has disappeared during recovery from diphtheria.

I believe that the Koch liquid is made from or by means of the tubercle bacillus. Its action on tuberculous tissue is simply marvellous. During my short stay in Berlin I did not see the reaction take place in tissues other than those which I suspected were tuberculous, unless it was in the nodules of leprosy. The lepra tubercles seemed to change color somewhat under the action of the Koch fluid. Yet to get the characteristic reaction, a dose sufficiently large to react on a healthy person had to be administered. If it does affect leprosy tissue, it is not surprising, as the lepra bacilli that I have examined appear to be related to the tubercle bacillus. However, their smaller size and their apparent motility being the points of difference, at present I am inclined to the opinion that the reaction produced by Koch's fluid is diagnostic of tubercular tissue; yet, until its curative power is determined, we must be cautious in our use of it as a diagnostic agent, for we have been taught that inflammation which, in all probability is tuberculous, is often set up in tissue that before treatment was apparently healthy.

The common experience with lupus-cases is somewhat as follows: In about five hours after the injection of the fluid, the temperature begins to rise, reaching its maximum quite suddenly. Then it soon falls to normal and in very anæmic patients reaches an alarmingly low degree. In one case of pernicious anæmia death soon followed the injection.

During treatment, a nodular infiltration takes place. The œdema which is present in many cases is exaggerated. As the fever subsides, prostration is often experienced, and the nodules gradually become covered with a crust under which can be detected healthy granulations. When these crusts fall off, red cicatrices are to be seen, and the surface soon presents the appearance of a perfect cure; but in some cases, after a few weeks the lupus-spots take on an inflammatory condition. We do not know how far the remedy destroys tuberculous tissue, for while it destroys recognizable tuberculous matter, the recurrence of the disease demonstrates that there may exist tuberculous tissue which the remedy will not destroy.

In the Charité Hospital I saw a case of lupus in a boy ten years old. The lesion began about the bridge of the nose and extended down on either side, involving the alæ and the skin covering both the superior and inferior maxillary regions. An injection of 0.002 gm. of Koch's fluid caused a rigor, vomiting, and a severe reaction, the temperature reaching 105° F., with the symptoms that usually follow the administration of a large dose when the area of tuberculous tissue is extensive. The patient soon became covered with a rash resembling scarlatina, and this process went on to desquamation, which involved the entire surface of the body. The lupus-tissue passed through the changes described until a healthy cicatrix was formed.

In another case of lupus, an irritating cough and harsh voice developed after the second injection. After the third injection, small clusters of red excrescences appeared on the right vocal cord. After some days the lupus was seen to be granulating nicely, the inflammation on the vocal cord had subsided, and the cough was rapidly decreasing.

To use the liquid, a one-per-cent. solution should be prepared by placing 0.1 c. c. of the fluid into a glass vessel graduated to 10 c. c. The vessel is then filled to 10 c. c. with sterilized water. 1 c. c. of this solution contains a dose of 0.01 c. c. of the original Koch fluid. The Koch syringe that I have here is graduated in tenths up to a capacity of 1 c. c.; therefore, if 1 c. c. of this one-per-cent. dilution be placed in the syringe, one-tenth of the syringeful will contain 0.001 c. c. of the remedy. In giving large doses, the ten-per-cent. dilution should be used.

Owing to the suppuration set up by the Koch liquid, in the vascular tissue immediately surrounding the tubercles, the remedy is positively contra-indicated in tubercular meningitis. This being so, the practitioner in treating other forms of the disease must be on the watch for indications of cerebral involvement.

Regarding its value in surgical tuberculosis, I can remember one case of resection of a rib of a patient in the Charité, in which the granulations had become

indolent, and the wound absolutely refused to heal until put under the Koch treatment. Reaction was produced by the first inoculation, after which healthy granulations developed and continued up to the day that I last saw the case, which was about the tenth day after the first injection.

The therapeutic value of the fluid in joint- and bone-tuberculosis is promising. Children in the Charité Hospital suffering with hip-joint tuberculosis seemed to experience much less pain when the joints were moved after treatment with the Koch lymph. The results in cases treated with the remedy until no further reaction could be produced and then operated on by mechanically removing all the necrosed bone and tissue seemed to be much better than those not so treated. If the necrotic parts are not removed they are likely to reinfect the system, as the débris disintegrates. This is especially so when there is a general predisposition to tuberculosis.

In one case of kidney-tuberculosis tubercle bacilli were found in the blood and urine. The remedy caused rigors and vomiting and an elevation of temperature to 105° F. When I last heard, this case was going from bad to worse.

After a successful experience with a reagent on guinea-pigs suffering from tuberculosis of the lung-tissue, I am disappointed that more has not been accomplished, but I have much faith in the ultimate triumph of the liquid over pulmonary phthisis, provided that the lesion is recognized and treated in its very incipiency. It must be borne in mind that the guinea-pigs which I have cured were in all probability not predisposed to tuberculosis. The remedy may render tissues more susceptible to the action of bacilli than before its introduction. Further, it may even disseminate bacilli into tissue that otherwise would never have become tuberculous. Should the dissemination of tuberculosis be extensive, the great decrease in the healthy lung parenchyma may prove disastrous to the life of the patient. Consequently, the remedy is positively contra-indicated in widely-disseminated lung tuberculosis, unless a much smaller dose than I have yet heard of be employed. My idea is, then, that we may be able to reduce the dose, so that it will be neutralized before it stimulates inflammation throughout the entire tuberculous tissue, and in this manner the living tuberculous tissue may be acted on step by step, so as not to cut the life of the patient short by a general inflammation throughout the entire area of tubercular tissue at one and the same time. What I have said about extensive lung tuberculosis, I believe will hold good regarding extensive tuberculosis of the larynx.

I cannot believe that a small cavity in the lung positively contra-indicates the use of the remedy. It is possible that the necrotic tissue will be absorbed and that the newly-formed walls in a number of cases will resist the attack of the living bacilli left in the necrosed tissue and cheesy masses.

In the treatment of mild cases of pulmonary tuberculosis, small doses of the liquid are used, the average initial dose being 0.001 c. c. About five or six hours after the injection there may or may not be a chill, followed by fever running from 102° F. to 106° F. The fever generally falls within two hours after it reaches its maximum, while sometimes it continues for forty-eight hours. The fever is not always in proportion to the size of the dose, so that at any time there may be an excessive rise after a prolonged period of moderate elevation. In one case the pulse increased to 160 and the respirations to 40. Diarrhœa is not an uncommon symptom. Enlargement of the spleen and the lymphatic glands is frequently perceptible. The patients often have an expression of great illness. The sputum frequently increases in quantity and contains necrosed tissue. The bacilli also increase in number after treatment, and you frequently find a change in the form of the bacilli resembling in morphology those we can cultivate on culture-media poor in peptones. After prolonged treatment both the sputum and bacilli decrease, while in many instances the tubercular process would seem to continue even after the injection of the liquid ceased to produce any reaction. The physical signs from percussion and palpation do not change except when an active inflammation is set up by the reagent, in what was not recognized as tubercle tissue.

To picture better the action of the remedy in pulmonary tuberculosis, I will give you the following history of an interesting case in the Charité:

A girl, aged twenty-three years, who had been treated with morphine and creasote. Her father and mother died from phthisis, and she has sisters now suffering from the same disease. Menses began at the age of eighteen and have been regular.

She was healthy before the summer of 1888.

Nine weeks ago when she entered the hospital her muscles were flabby and she felt weak, but there was no loss of power.

Conjunctiva, lips, and oral mucous membrane anæmic. Tongue moist. Teeth good. Pulse normal. Form of chest good. Costal respiration somewhat increased on both sides. Lungs and heart of normal size. Slight dulness over left apex, but still some vesicular breathing, with a few crepitant râles. Dry, hacking cough.

Weight on entering, one hundred pounds. In three weeks she lost two pounds.

Bad cough, difficult expectoration, and slight pain in apices and other parts of the chest. Could not eat well. Cough caused vomiting. Night-sweats.

When she entered the hospital she could not sleep even after the administration of one-fourth of a grain of morphine.

November 19. Over right apex vesicular breathing. Dulness over left apex. Between the arytenoid cartilages there were to be seen projections forming the walls of ulceration.

21st. 0.002 c.c. of the Koch fluid injected. Slight nausea. Temperature rose to 38.3°. Expectoration increased. Pulse 100. Respirations 20.

22d. 0.005 c.c. of the Koch fluid injected. Morning temperature normal. At 6 P. M. 39.8° C. Pulse 124. Respirations 25. Spots on larynx slightly swollen. Cough looser.

23d. Morning temperature normal. Evening temperture 37.6° C. Respiration 22, pulse 104. Gray spots appear on larynx.

24th. 0.005 c. c. injected. Morning temperature normal. At 6 P. M. 38.6° C. Slight friction-sound in left lung between axillary and mammary lines. Marked enlargement of the ulcers on the arytenoid cartilages. Left vocal cord shows grayish spots; moist râles in left apex.

Increased dulness in left lung. Further enlargement of ulcers on arytenoid bodies. Bronchial breathing. Great weakness.

26th. 0.008 c. c. injected. Morning temperature normal. Evening temperature, 9 P. M., 40.1° C. Pulse and respiration unchanged. Cough increased. Expectoration lessened. Sleeplessness returned.

27th. No change.

28th. 0.010 c. c. injected. Afternoon temperature, 38.3° C.

29th. A markedly improved general condition. Area of dulness lessened. No râles to be heard excepting over right clavicle.

December 1. 0.013 c. c. injected. Afternoon temperature 38.8° C. Up to this time there was a gain in body-weight of two pounds.

4th. 0.015 c. c. injected. Afternoon temperature, 39.5° C. Pulse 130. Respirations unchanged. Area of dulness increased. An increase of râles. With these conditions, a general disturbance was manifest. Bacilli continue in as large numbers as at first.

8th. The patient has lost one pound.

This history is about an average one. It certainly teaches us very little excepting that if improvement in pulmonary phthisis occurs under the Koch treatment, it is exceedingly slow, yet at the same time it shows that there is little or no *immediate* danger in the use of the liquid in mild cases of pulmonary tuberculosis, unless in exceptional cases in which there happens to be tissue that is hypersensitive to the action of the remedy.

While watching the effects of the liquid on lupus, the question that arises is, After the treatment, what condition are the tissues in immediately adjoining those which were sufficiently tuberculous to necrose under the inflammatory process produced by the Koch fluid? Will this apparently healthy tissue in the human economy be rendered immune, or will it be rendered more susceptible to the tuberculous process?

Professor Koch personally informed me that he felt quite certain of the power of his remedy to cure lupus and very mild cases of laryngeal tuberculosis, but that he did not believe it safe at present to make any estimate of its therapeutic value in other forms of tuberculosis.

ORIGINAL ARTICLES.

A CASE IN WHICH A FOREIGN BODY WAS LEFT IN THE ABDOMINAL CAVITY AFTER OVARIOTOMY;

And Some Remarks upon the Effect of Tapping a Unilocular Ovarian Cyst.

BY RICHARD WILSON, M.D.,
OF PHILADELPHIA.

THROUGH the kindness of Dr. Walter F. Atlee, I am permitted to publish the following case, which is of interest on account of the rare and serious accident which happened, and because it shows once more the effects of tapping on the contents of an ovarian cyst.

Mrs. T. P., aged fifty-one years, married, has three children, the youngest eleven years old. She ceased menstruating about six years previously to the time when first seen by Dr. Atlee, January 19, 1888. For many months she had been treated medicinally for "abdominal dropsy." Dr. Atlee diagnosed a monolocular ovarian cyst, and the patient refusing ovariotomy was tapped. The liquid flowed freely through the tube to the amount of three gallons (one and a half bucketfuls), and was readily recognized as the contents of a cyst.

April 22, 1889. The patient, who again refused to have the cyst removed, was tapped a second time. One gallon of glutinous fluid, which was so thick as to flow with difficulty through the large tube, and colored with blood, escaped.

July 29. Ovariotomy was performed by Dr. Atlee, with two assistants besides the anæsthetizer. There was much ascitic fluid in the abdomen; the contents of the tumor were gelatinous and would not flow through the canula, although a large one was used. The pedicle was dropped into the abdomen.

Before the operation, the assistant who had charge of the sponges forgot to count them, and after the operation he found eight. Dr. Atlee said that he always used nine sponges, and ordered the room to be searched for the missing sponge—a flat one the size of a hand, introduced to absorb the blood while suturing the abdominal walls. As he was in a hurry, having a pressing engagement, he did not wait, so confident was he that the sponge would be found. But it was not found.

The patient did perfectly well until August 2d, the fourth day after the operation, when nausea and vomiting, with tenderness and swelling of the abdomen developed. Dr. Atlee thought that he felt to the right of, and somewhat above, the navel, a body that might be the missing sponge. On the next day he made an incision one and a half inches to the right of the umbilicus, cut through the rectus muscle, and found the peritoneum very much thickened. On opening the peritoneum very foul, stinking gas and some fluid escaped. The sponge was found adherent to the abdominal parietes and to the intestines. The adhesions were torn with the fingers, and after the sponge was removed the intestines had the appearance of coarse velvet. The patient died at 10 P. M. of the same day.

This case is interesting for two reasons. In the first place, there have been very few cases in which foreign bodies were left in the abdomen, and most of these have not been published. Dr. H. C. P. Wilson,[1] of Baltimore, who published a detailed account of a case that happened in his practice, was able to collect the reports of thirty other cases. Of these only ten cases had been published.

In commenting upon this subject, Dr. Wilson says:

"I am convinced that this is a much more frequent cause of death than any of us suppose, and if we were able to collect the number of fatal cases resulting from this source we would be surprised. Unfortunately,

[1] Foreign Bodies Left in the Abdomen after Laparotomy. Transactions of the American Gynecological Society, vol. ix. pp. 94–108.

many of the known fatal cases are not published, because they are damaging to the surgeon's reputation in the profession and in the community in which he lives. Hence these cases are rarely given to the world."

In looking through the *Index Medicus*, I have been able to find the report of only one case in which this accident happened, since the publication of Dr. Wilson's case. This was reported by Dr. W. Gill Wylie,[1] in whose practice it happened, and is in a "Table of Sixteen Miscellaneous Laparotomies" (Table IV., Case 3). The case is as follows:

A married woman, aged thirty-two years, with one child. A diagnosis of abdominal pregnancy had been made. The fœtus was killed at seven and a half months, and there were septic symptoms for several weeks. Abdominal section was performed February 10, 1887. The patient was weak from the prolonged sepsis, and her abdomen was greatly distended. The fœtus, placenta, and several quarts of decomposing fluid were removed. A drainage-tube was used after the operation. The patient "died in thirty-six hours from shock and sepsis." There was "no loss of blood during the operation. Sponges left in the cavity by mistake."

Dr. Wylie makes no further comment on the case.

I think that undoubtedly other cases have occurred since 1884, but either they have not been published, or, like the case of Dr. Wylie, were published among others in tabular form, the title of the article not calling attention to tne case. I have looked through several of such tables without success.

The following is a *résumé* of the thirty cases collected by Dr. H. C. P. Wilson. My excuses for quoting them are the rarity of the accident, its importance, the fact that it has occurred in the practice of skilful surgeons, and that it has been insufficiently noticed, and in the hope of causing greater care in counting the sponges during an abdominal section.

CASE I.—The surgeon was closing the abdomen when his assistant reminded him that there was a sponge in the cavity.

CASE II.—All the stitches had been inserted, and the surgeon was closing the wound, when an assistant told him that a sponge was missing. The wound was opened and after some time the sponge was found behind the intestines.

CASE III.—A sponge was missing after the abdomen had been closed. The wound was opened and the sponge removed. Patient recovered.

CASE IV.—The absence of the sponge was not discovered until revealed by a post-mortem examination.

CASE V.—An autopsy revealed a pair of forceps in the abdominal cavity.

[1] "A Year's Work in Abdominal Surgery, with Report of Eighty Laparotomies done in 1887." Transactions of the Medical Society of the State of New York; Syracuse, 1888, pp. 242–259.

CASE VI.—Dr. H. C. P. Wilson's case. The presence of the sponge in the abdomen was not suspected until it worked its way to the surface several months after the operation, and was removed by Dr. George H. Hocking. The patient recovered.

In commenting on this case Dr. Wilson says:

"This case, so far as I am aware, is unparalleled in the history of abdominal surgery. A woman, five months advanced in pregnancy, has an ovarian tumor removed from her, has a large piece of sponge left in the abdominal cavity, miscarries eighteen days after the ovariotomy, has the sponge remain in her body five months and eighteen days before it escapes through the abdominal walls, and yet the woman is now living and in better health than ever before.

"By what accident this sponge was allowed to remain in the abdominal cavity, I do not know. Before closing the wound I ordered the sponges to be counted, which was done, and reported all correct."

Either a piece of sponge was torn off and permitted to remain, or the counting was incorrect.

The foregoing six cases occurred in America, the following fifteen in Europe. Ten European cases are unpublished (Cases VII. to XVI.), and Wilson could get no history of them, but publishes them on the authority of Lawson Tait, who, after describing his own fatal case, says: "I happen to have heard of ten other cases in which the sponge was left behind.

CASE XVII.—Lawson Tait describes his case as follows: "In one of my operations, a bystander, hearing me ask for a small sponge, tore one in two, so that there were thirteen sponges in use, instead of twelve, and both the nurse and myself were ignorant of the fact. The gentleman who tore the sponge alone knew of his act, and he left the room before the operation was finished. The result was, that we found the thirteenth sponge four days after."

CASE XVIII.—A case of Spencer Wells's. While finishing an operation, Mr. Wells was told by an assistant that a sponge was missing. He requested the nurse to count them, which she did, and reported that they were all there. At the same time he felt in the abdominal cavity but did not find the sponge. This was at 2 or 3 o'clock P. M. At 8 or 9 o'clock P. M. his assistant reported to him that one sponge was missing, and that it must be in the patient's abdomen. At first Mr. Wells did not know what to do about it. As the patient seemed to be in good condition, he did not like to open the abdominal cavity again, so he decided to wait. In the morning the patient was very ill. "I took out two stitches and put my finger in; I felt the sponge, I took it out, reclosed the wound, and the patient was not much the worse for it."

CASE XIX.—Also happened to Spencer Wells, while removing both ovaries. He thought that he had removed every pair of torsion-forceps and closed the wound. About two hours after the operation, he received a message saying that a pair of forceps was missing and that probably they were in the patient's abdomen. The operator saw the pa-

tient at once. She was doing well, and he did not disturb her. She was very restless during the night. On the following day he examined her carefully through the vagina, rectum, and abdominal walls, but could not feel the forceps. Mr. Wells felt very uneasy, and decided to open the wound. Under the pretence of changing the dressing and that it would hurt her, he anæsthetized the patient with methylene, took out two stitches, inserted two fingers in the wound, and found the forceps wrapped in the omentum. From the way in which the omentum had insinuated itself into the ring-handles of the forceps and between the blades, it is easy to understand how difficult it was to remove the instrument; "but I did it, returned the omentum, and closed the wound, and the patient was none the worse. She got perfectly well, and, to this day, does not know that anything unusual occurred."

CASE XX.—A case of Dr. Carl Braun, in which a post-mortem examination revealed a sponge in the abdomen.

CASE XXI.—A case of Dr. Gustav Braun, in which a post-mortem examination revealed a pair of bull-dog forceps in the abdomen.

CASE XXII.—Reported by Dr. T. Gaillard Thomas. In an exploratory incision, a malignant tumor being found, one sponge only was used. The patient died in a few days, and a post-mortem examination revealed in the abdomen a piece of sponge, which must have been torn off.

CASE XXIII.—Reported by Dr. George J. Engelmann, of St. Louis. A post-mortem examination, after ovariotomy, showed a sponge in the abdomen. It was left there through the meddlesomeness of an assistant, which even the watchfulness of a careful operator could not restrain.

CASES XXIV., XXV., XXVI.—Reported by Dr. A. Reeves Jackson, of Chicago. In two cases a sponge was found in the abdominal cavity after death; in the third case a pair of hæmostatic forceps were found. As the gentlemen in whose hands these accidents occurred had not published them, their names were not given.

CASE XXVII.—Reported by Dr. William T. Howard, of Baltimore, as occurring in the hands of an English operator. A post-mortem examination revealed a sponge in the abdomen.

CASE XXVIII.—This case occurred in the practice of one of the most eminent surgeons of America, but as he never published it, his name is not mentioned. A sponge was found in the abdominal cavity.

CASE XXIX.—This case and Case XXX. Wilson reports in a foot-note, as he heard of them after finishing his article. Dr. Wilson received a letter from Dr. Walter F. Atlee, saying: "I was in Lancaster last winter (1883–1884), at my father's, Dr. John L. Atlee, when he received a letter containing the news of the death of a patient from lockjaw, from whom he had successfully removed a large ovarian tumor. When the body was opened, half a sponge was found in the abdomen, and it was discovered that one of the assistants had divided a sponge during the operation. When the sponges were counted after the operation the number was reported correct, and my father was satisfied. This is the last case upon which he operated before his health broke down, and it may have had something to do with his stroke."

CASE XXX.—Reported by Dr. William Wotkyns Seymour, of Troy, N. Y. The case was one of Dr. Horwitz's, of Copenhagen, in which a sponge in the abdomen was found to be the cause of death after abdominal section.

The second point of interest in the case I have reported is that it shows the bad effects of tapping in some cases. At the first tapping, June 18, 1888, clear liquid flowed freely through the tube. At the second tapping, April 22, 1889, the fluid was glutinous and very thick. At the operation, July 29, 1889, the contents of the tumor were gelatinous, and would not flow through a large canula.

All gynecologists are now agreed that, as a rule, ovarian and parovarian cysts should not be tapped. Tapping should be regarded as palliative only, says Emmet, and should not be resorted to except to make a diagnosis, or to gain time, when the condition of the patient does not admit of an operation. It is applicable to single cysts only, and should never be employed in the multilocular variety.

Tait says:

"I cannot regard the introduction of the trocar into the inflamed tissues of the pelvis as a procedure free from danger under all circumstances."

Spencer Wells,[1] from his first five hundred cases, concludes that

"It may be taken as almost certain that the mortality of ovariotomy is but little affected by tapping, that the fact of a patient not having been tapped, or having been tapped very often, is by itself of little or no value in prognosis. I have stated elsewhere that such adhesions as are apt to follow tapping have no appreciable effect upon the mortality after ovariotomy; and I can now add that in some of the patients who have been tapped most frequently there were no adhesions, and that there were firm adhesions in some who had never been tapped.

"Enough has assuredly been adduced to warrant the acceptance of the following propositions:

"(1) That one or more tappings do not greatly increase the mortality of ovariotomy.

"(2) That tapping may often be a useful prelude to ovariotomy, either as a means of gaining time for the patient's general health to recover, or of lessening shock, by relieving her of the fluid a few hours or days before removing the solid portions of an ovarian cyst."

The chief objections to tapping are: (1) The danger of peritonitis, should the fluid be irritating, as it often is, when even a few drops entering the peritoneal cavity might excite inflammation. This is more to be dreaded in the first tapping than in subsequent ones; for, if peritonitis does not set in after the first tapping, the fluid is unirritating, or the cyst is adherent to the abdominal walls. (2) There is always danger of the trocar puncturing a blood-vessel, in either the abdominal wall, the peritoneum,

[1] Diseases of the Ovaries, London, 1872, p. 275.

or the cyst itself. This is a most serious complication if the vessel is large, the symptoms being urgent for an immediate abdominal section. The accident, however, is not common, and the risk is reduced by tapping through the linea alba, which being tendinous, has few and small bloodvessels. (3) Adhesions are apt to form after tapping. These would complicate ovariotomy, should it be required later. (4) A cyst that has been tapped is apt to refill, necessitating a repetition of the tapping. This secretion and elimination of the fluid is a drain on the system (Goodell). On the other hand, Emmet says that, in many cases, tapping may be resorted to for years before the strength of the patient succumbs to the continued drain. Occasionally a single cyst does not refill after having been tapped; but if it does not, the probabilities are that the tumor is a cyst of the broad ligament, the fluid of which is bland and unirritating to the peritoneum. (5) If the cyst is multilocular and the largest cavity is tapped, by removing the pressure on the smaller cysts, it will give them a better opportunity to grow. (6) A cyst that has been emptied is apt to rotate on its axis, and torsion of the pedicle may result, ending in gangrene and peritonitis. (7) Repeated tappings tend to convert benign papillary growths into malignant growths (Goodell). (8) According to Tait, repeated tappings deprive the blood of some of its elements. Such elements are found among the great variety of albuminous substances in ovarian cysts, the deficiency of which in the blood predisposes to coagulation.

There are, however, cases in which tapping cannot be dispensed with: (1) Women often refuse the radical treatment, as they have heard of cases in which tapping was followed by cure. They will not submit to ovariotomy until repeated tappings have proved to them that this treatment is only palliative. (2) Cysts of the parovarium and of the broad ligament being often cured by the use of the trocar, it is proper to try the effect of one tapping in slowly-growing, unilocular, thin-walled, flaccid cysts, which thus exhibit the chief characteristics of these extra-ovarian cysts (Goodell). The contents of these cysts are generally limpid, but they may be very thick and gelatinous, and the color may vary from the lightest to the darkest shades. "When the contents are limpid and of low specific gravity, tapping probably does little harm to the constitution, for the system is robbed of little more than water. Such cases probably yield the instances in which tapping has been performed an enormous number of times over a long series of years" (Tait[1]). (3) In advanced pregnancy, tapping may be necessary to allow the woman to go to term. (4) If the cyst, by its large size, presses on the vital organs, and thus interferes with their functions. (5) To clear up a doubtful diagnosis. (6) In cases in which a large number of adhesions make ovariotomy impracticable.

[1] "The Pathological Importance of the Broad Ligaments." Edinburgh Medical Journal, July and August, 1889.

FOREIGN BODIES IN THE NOSE IN CHILDREN, VERSUS NASAL CATARRH.

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AT first thought, it may seem impossible to mistake a foreign body in the nose for catarrh, and, doubtless, this is quite true if the patient is seen shortly after the accident. In many cases, however, when advice is sought, no history of a foreign body having been introduced into the nose can be obtained, and the attendant, therefore, treats the patient for simple catarrh, and, perhaps, only after months or even years have elapsed is the real nature of the affection discovered.

The frequency with which I have met instances of foreign bodies in the nasal passages being mistaken for catarrh leads me to believe that this error in diagnosis is not uncommon, and warrants me in briefly recording some examples in illustration of my observation. During the past few years five cases have come under my care in hospital and private practice in which this oversight had been made.

CASE I.—The patient had been the subject of so-called catarrh for one year, and had been treated for a variety of affections, among them malarial fever and inflammation of the brain. I removed a shoe-button from the right nasal fossa.

CASE II.—The patient was brought to my clinic with an offensive discharge, from one nostril, of several months' duration. A cinder the size of a small pea was found to be the exciting cause of the trouble.

CASE III.—This case had all the objective symptoms of chronic purulent rhinitis, chiefly affecting one side. The upper lip was excoriated, and the breath very fœtid. Upon exploring with a probe, a hard substance was detected, which, when extracted, was found to be an ordinary shoe-button.

CASE IV.—This patient was brought to me because the parents thought that the child had a tumor in her nose; and, judging from appearances, the diagnosis was not unreasonable. Protruding from the nasal orifice on the left side a fungous mass was observed, from which exuded a yellowish discharge tinged with blood. The face was slightly swollen, and the integument discolored on the corresponding side. A grating sensation was communicated to the hand upon the introduction of the probe, and further investigation, with the patient under ether, proved the obstacle to be a shoe-button.

CASE V.—A little girl from an adjoining State, had been treated for catarrh by her family physician

for two years, without success. Patent medicines had also been liberally used. The symptoms being those of a foreign body in the nose, I gave the child ether and removed a shoe-button from the right nasal fossa.

In not one of these cases had the nasal passages been properly examined. There is no better light than the sun for investigating the upper air-passages, and the simple introduction of a probe into the nostrils, the head of the child being held firmly between the knees of the surgeon, is not a difficult operation. If, on account of the restlessness of the child, this is not possible, a few whiffs of an anæsthetic will be sufficient to enable one to decide whether there is any obstruction in the nasal fossæ, and, if one is present, its nature. The diagnosis may also be made by a thorough examination of the nose anteriorly and posteriorly, and by ascertaining if the patient has at any time breathed perfectly through both nostrils, and if the coryza came on suddenly with a watery discharge and obstruction on one side.

Necrosis being excluded, a foreign body in the nose is the most rational diagnosis to make when we detect a hard substance in the nasal passages of a child. The age of the patient will also throw some light upon the case, for foreign bodies are most frequently found in children between the time when they begin to creep and the age of six years.

Foreign bodies in the nose may be mistaken for tumors, deviation of the septum, hypertrophy of the middle and inferior turbinated bodies, abscess, congenital syphilis, etc.; but these affections are excluded by careful examination.

Before beginning the operation for the removal of a foreign body from the nose, it is best to wrap the child in a sheet or towel, in order to confine the arms and legs; then, with an assistant holding the body, the head of the child is placed between the knees of the surgeon and a probe gently introduced into the nostril. If a foreign body is present, a sense of resistance will be felt if the substance be soft, or a grating sensation if it be hard, and the operation may be completed without delay. The parts surrounding the foreign body will, as a rule, be found swollen, and, for the purpose of reducing this turgescence, the application of a solution of cocaine is advisable, followed a few moments later by a spray of liquid alboline to facilitate the removal. The subsequent treatment consists simply in washing out the nose twice daily with a weak solution of the permanganate of potassium.

Of the various instruments for the removal of foreign bodies from the nose, I prefer Gross's extractor and the wire-loop in ordinary cases. A pair of slender forceps may be at hand for withdrawing the substance after it is brought to the nasal orifice. In children who are tractable the operation may be performed without an anæsthetic, but in the majority of cases much time and pain are saved by the careful use of an anæsthetic.

204 WEST MONUMENT STREET.

CEREBRAL SYPHILIS, WITH REPORTS OF CASES.[1]

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AN essay might well be written on the consequence of syphilis to the human race, showing the baneful influence which this disease has been and is exerting upon the civilized countries of the world. Although its virulence, as the history of these countries shows,[2] is not now so malignant as it was in the past, yet much of the diseased condition of humanity is attributable to the inherited or acquired poison of syphilis.

I have not the time or the ability for such an essay, and shall confine my remarks to the effects of the disease upon the brain. The past twenty years have witnessed enormous strides toward establishing the principles of cerebral localization. There are yet many unexplained clinical facts regarding the seat of disease, but such facts as we now have enable us to understand more fully the functions of the brain, and the methods of diagnosis of cerebral disease. In cerebral syphilis the diagnosis depends in many cases wholly upon our knowledge of cerebral localization. The external evidences of the disease are wanting. The previous histories of such cases are, as a rule, defective, and the patient may be entirely ignorant of having had syphilis, because of the absence of the signs or symptoms of its primary or secondary stages.[3] Further, it is a fact, that nervous involvement due to syphilis generally occurs years after the appearance of the initial lesion, when the apparent evidences of the diathesis may have entirely disappeared, especially because the nervous system is more prone to be attacked when the secondary symptoms have been slight than when the earlier manifestations have been severe.[4] A great many cases have such marked constitutional symptoms that the presence of syphilis cannot be mistaken. The various cutaneous and osseous lesions themselves tell the tale which the patient will not. But, those obscure cases, with no cicatrices on the genitals or groins, no scars on the forehead, no tenderness over the sternum, and no iritic adhesions, are the cases which call for our recogni-

[1] Read at the Sixteenth Annual Meeting of the Mississippi Valley Medical Association, October 10, 1890.

[2] Medical Record, June 8, 1889.

[3] Dowse: Brain, vol. i.

[4] H. C. Wood: Pepper's System of Medicine.

tion of the focal symptoms and their meaning. To diagnose cerebral syphilis we must keep in mind the propositions of Hughlings Jackson,[1] namely: (1) no single symptom is diagnostic of syphilis; (2) disorderly groupings and succession of certain symptoms are very strong evidence in favor of it; (3) certain single symptoms, however, are premonitory to the outbreak of more severe cerebral disturbances. Of these, headache, generally localized and with nocturnal exacerbations, is the most pronounced. Next, we may mention insomnia, which, says Buzzard,[2] when prolonged without any evident cause, should suggest an inquiry in regard to the existence of constitutional syphilis. Somnolence, also quite marked in many cases, and often terminating in fatal coma, is the first evidence of any cerebral disturbance. Vertigo, numbness of the extremities, loss of memory, excitability, and irritability of temper, are also premonitory symptoms.

Nearly all cases of cerebral syphilis are tertiary phenomena, and consequently due to gummata; but, in the observation of thirty-six cases of the disease I have seen several which were undoubtedly primary, and some which were secondary in origin.

The following cases of mental disturbance occurred during the continuance of primary symptoms:

CASE I.—A man, aged twenty-one years, who contracted syphilis three months previously. A phagedænic ulcer had formed, and was not quite healed when I first saw him. There was general enlargement of the glands, mucous patches in the mouth, and a pustular inflammation on the forehead. He was then under treatment for syphilis, and had been for some time, so that the manifestations of the disease were modified by the mercury he was taking. The cerebral symptoms were, briefly: Insomnia, headache, followed by somnolence, and later by a somnambulistic state. The last condition was first noticed while attending a party. He had an attack of severe headache, with vertigo, asked permission to lie down, was shown a bedroom, and his recollection ends with his lying upon the bed. He reappeared in the dining room after a short absence, and, much to the astonishment of all, was quite devoted to a young lady with whom it was known he had previously quarrelled. She could not account for his devotion, excepting by the belief that he had been drinking. His friends, fearing that such was the case, invited him to remain all night. In the morning, when told of his reappearance on the floor, and his attention to the young lady, he denied all recollection of it whatever, and accused his friends of joking. He further denied taking liquor of any kind.

Ten days later a similar attack, with the same prodromes, occurred. On this occasion he left home, and when he regained consciousness found himself in a hotel, in a city forty miles distant. How he came there, how long he had been away from home, or what he had been doing, he knew not. He returned home, and a few days later repeated the trip. This time it was forty-eight hours before he regained consciousness. As before, he had no recollection of what occurred. A third time he started for the neighboring city, but was overtaken by his brother at the railroad station. When accosted by his brother he appeared natural in his behavior, but was not subject to external influences, was seemingly in deep thought, was more or less automatic in his movements, and would not converse. When he regained consciousness he was greatly surprised to learn what he had done.

I saw him on the next day, when he was worried, melancholic, and self-accusative. After satisfying myself that it was undoubtedly a case of syphilis, I put him upon the iodide of potassium, and also directed him to continue the mercury. About three weeks later he reported again, saying that he had not been troubled since he first saw me, excepting with headache, lasting for a short time. He informed me that he contemplated going to Hot Springs, Arkansas, and this was the last time that I saw him. I have since learned that he returned home in due time very much benefited, and is now in a normal mental condition.

The strangeness of the symptoms, the departure from the ordinary type of organic disease, and the somnambulistic manifestation, all point to some perversion of the circulation, or an abnormal condition of the blood itself, affecting the supreme cerebral centres. If the cause was perverted circulation, we do not know the actual condition of the brain under these circumstances. It is reasonable to conjecture that alteration in the cerebral circulation was the cause, when we consider the distribution of the arteries and the physiology of sleep.

The arteries which supply certain areas of the convolutions may be affected, causing activity of the circulation in these vascular areas, and, as a result, somnambulistic dreams.[1] The affection of the arteries may be either vasomotor disturbance, or cell-proliferation within the walls of the vessel of the pia, causing diminution of the circulation, and, consequently, malnutrition, and lessening, or perversion of the functional activity of the ganglionic cells in the underlying brain-substance. If such is the case, the observation of and comparison with other cases might lead to localization of the mental faculties.

CASE II. *Late secondary phenomena.*—A man, aged twenty-three years, single (history defective). For six months prior to his admission in the Illinois Central Hospital for the Insane he was confined to his bed at home. When admitted he was feeble and emaciated, his circulation was poor, and bowels

[1] Lancet, February 21, 1880.
[2] Lancet, 1873.

[1] Maudsley: Physiology of the Brain.

constipated. The mental symptoms were those of acute primary dementia. He had not spoken for several months, stared vacantly, and, apparently, was not conscious of his surroundings. He was filthy in his habits, had an inordinate appetite, and would eat anything, including his own fæces. No history of syphilis was given by his friends, but evidences of primary lesions were marked. Secondary manifestations, such as thinning of the hair of the scalp, and skin eruptions, resembling psoriasis, on the posterior surfaces of the lower extremities and on the anterior surface of his arms, were present. (Hutchinson regards such an eruption as syphilitic in origin.) No marked superficial tertiary symptoms were shown.

Acting on the supposition that the case was one of syphilis, I immediately put him on anti-syphilitic treatment. No marked change occurred for several weeks, except a gradual improvement in his general health. At the end of three months he had improved so much that he was able to dress himself and attend to his wants, and was interested in his surroundings. Ataxic aphasia soon took the place of the complete aphasia which had prevailed for six months. This gradually faded away with the improvement in his general mental condition, and he was able to converse rationally, his articulation becoming perfect. He then gave me a history of syphilis contracted two years before. The primary lesions were slight, and he had no recollection regarding the appearance of the secondary phenomena. He was discharged cured, so far as his insanity was concerned, six months after admission. He had gained forty-five pounds in weight, and had all the indications of good health. He is now married, and follows his trade, that of a painter and decorator, in Chicago. One and one-half years have elapsed since he was discharged, and as yet he has had no evidences of a return of the disease.

This case is interesting because of the long duration of functional disorder of the brain, and the subsequent complete recovery, with no evidence whatever of organic change. The pathology of the case can probably be explained by conditions similar in nature to those in the preceding case, namely, an arteritis not sufficient to produce organic changes, but, so far advanced as to affect the nutrition of that part of the brain presiding over the intellectual faculties. The coëxisting aphasia locates the disturbance in the vicinity of the Sylvian artery, for we know that all impairment of speech is due to the involvement of the terminal branches of that artery.

The more common form of cerebral syphilis is, as I have before stated, a tertiary phenomenon, and therefore a disease of tissue.

The following case is typical of gummatous deposit:

CASE III.—Male, aged thirty-five years, married, had syphilis twelve years before admission to the hospital. Three years before, his friends decided to have him committed as insane. He had an apoplectic stroke, followed by hemiplegia, lasting but a short time. Following this a gradual change was noticed in his mental condition; he became forgetful, irritable, and excitable. One and one-half years later he had a second apoplectic attack, with hemiplegia; became partially blind; had partial ptosis of short duration, and strabismus, and declined slowly mentally. Amnesic aphasia then developed, and later partial ataxic aphasia. His physical health on admission was fair. Mentally, he was excitable and delusional, having delusions of grandeur, and believing that he possessed unlimited wealth and power.

One evening, while at supper, about three months after admission, he suddenly became unconscious, fell to the floor, and had a severe convulsion, followed by a variety of symptoms, indicating a general effusion into the lesion. He regained consciousness in about twenty-four hours, but was more or less somnolent for several days, after which time he seemed to be about as usual. He declined slowly in general health, and paretic symptoms became marked and variable. Four months later he again became unconscious, and had several severe convulsions, followed by profound coma, which lasted until his death, nine days later. The paralytic symptoms observed from the inception of the disease until death were briefly as follows: Ptosis, at first transitory, but at last becoming permanent, and loss of accommodation, with bulging of the eyes. This group of symptoms indicates involvement of the third nerve, and considered with the headache which was localized, more or less persistent, and unusually severe at night, suggests syphilis. (Jackson.) Further, the involvement of the sixth nerve, as indicated by transitory internal strabismus, due to paralysis of the external rectus muscle, indicates syphilis. Aphasia, progressive, and ultimately complete, showed complications in the vicinity of the Sylvian artery, which resulted in complete destruction of the artery, as verified by post-mortem examination. Hemiplegia, at first short in duration, afterward permanent, was primarily due to impeded circulation, finally to occlusion of the middle cerebral artery. Hemiplegia, accompanied with loss of consciousness, can always be attributed to intracranial disturbances. The bedsores which developed on the nates, heels, and elbows, showed indication of impairment of the trophic nerve-fibres.

The psychical symptoms were varied, and slow in development, delusions of grandeur being especially marked. Such delusions are characteristic of certain specific cases. The post-mortem examination revealed further evidences of the existence of syphilis. The dura and pia were matted together, which, according to Meyer, is pathognomonic of syphilis. A deposit of granular tissue, similar to that found in syphilitic growths, was found at the base of the brain, in the region which the focal symptoms had indicated. H. C. Wood says it is well known that morbid exudations, not tubercular or syphilitic, are rare in this region, and this fact, taken into consideration with the abrupt and variable paralytic symptoms, strongly point to syphilis as the cause of the patient's brain-disease.

The following case shows the strong relationship between cerebral syphilis and general paralysis:

CASE IV.—Patient was a male, aged forty-four years, married. A gradual change had been noticed in his disposition and mental power for more than a year previously to his admission to the hospital. He became forgetful, irritable, and even homicidal, and attempted to kill his wife. On admission he had the following paretic symptoms: Tabes dorsalis, lack of general muscular coördination, and marked impairment of articulation. The pupils were unequally dilated, the right being the larger, and bodily nutrition was impaired. The mental symptoms were characteristic of general paralysis, viz.: Delusions of grandeur, he believing himself the owner of the world and all its wealth.

He had had the initial lesion of syphilis fifteen years before. His history subsequent to admission was that of general paralysis, and, after admission, slow decline, with occasional intermissions, when he would improve only to lose more ground when the decline began again. On the day before his death he had an epileptic convulsion, and on the day of his death two more, the last one proving fatal.

The relationship between cerebral syphilis and general paralysis is hard to establish, because of the unreliability of statistics (Gowers); but Dr. C. J. Folsom[1] believes that the relationship is proven to be not accidental, for two-thirds of all general paralytics are syphilitics as well. Dr. Folsom does not regard it as a stage of syphilis, nor amenable to syphilitic treatment. Dr. S. Weir Mitchell believes in the relationship, and, to a certain extent, in the curability of general paralysis by syphilitic treatment. In a recent number of the *Journal of Nervous and Mental Disease* is an abstract of a paper by Dr. Cuylits, of France, in which the author mentions three theories concerning the relationship between syphilis and general paralysis, viz.: (1) that general paralysis always has syphilis as a cause; (2) that syphilis never causes general paralysis; and (3) that syphilis exercises some influence upon its production, whether as a determining or as an occasional cause. Another view is, that general paralysis indirectly predisposes to syphilis. The general paralytic during the stage of excitement that precedes the development of the malady gives way to every kind of excess, and is particularly liable to syphilis. This important question is now before alienists and neurologists, and we await developments that will clear up the pathology of both diseases, and establish the true relationship between them. I would say that I am convinced of the very close kinship of these diseases, and regard general paralysis as due to syphilis in at least eighty per cent. of all cases.

The few cases which I have reported represent the heterogeneousness of nervous syphilis, and while it may be admitted that there are no symptoms which are really pathognomonic of cerebral syphilis, and which will enable us at all times to diagnose it, yet it may be maintained that when we consider a case as a whole, observing the symptoms from their inception, how they begin their course, how they are associated, yet dissimilar, and how they end, there is often good reason for a diagnosis of cerebral syphilis. Sometimes, when we are even then in doubt, if we will but apply the therapeutic test of anti-syphilitic treatment, we can clear up all the doubts.

[1] Association of American Physicians, 1889.

A REPORT OF ONE HUNDRED SINGLE MAJOR AMPUTATIONS PERFORMED AT ST. LUKE'S HOSPITAL, SOUTH BETHLEHEM, PA.

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THOSE interested in the rapid advance of surgery will certainly read with interest and perhaps with instruction the following simple statistical collection of amputations performed according to modern methods. The one hundred cases which I wish to report are the sum total of all the single, major amputations performed in St. Luke's Hospital between January 1, 1888, and October 19, 1890.

Before giving the statistics, it may be of interest, especially to young hospital surgeons, and to those who have not had the advantage of hospital experience, to be told in a few words by what means we get results which are certainly flattering. Therefore, I will describe as concisely as possible an ordinary "everyday" case requiring amputation. As will be seen further on, ninety-three of these cases were due to some accident—in almost every case a railroad injury. The case generally has been injured from four to ten hours previously, and has been lying in a crowded railroad station before being taken to the South Bethlehem depot, where a single dressing is hurriedly applied. The injured person is then carried in five minutes by the ambulance to the hospital. On his arrival he is immediately placed on the operating table, and his clothes, as far as practicable, removed.

If he is badly shocked, he is left with the nurses, who surround him with hot cans and, at the same time, stimulate him either by the mouth or hypodermically. Here let me say, that we know of no more effectual stimulant than what is called in the hospital "strong medicine," the formula for it being the following:

℞.—Tincture of digitalis . . . . . 5 minims.
Aromatic spirit of ammonia } of each 10 "
Compound spirit of lavender }

This is given as often as the condition of the patient may indicate.

It is very unusual for us to amputate while the patient is in a condition of shock, although two of our deaths occurred during shock. When the patient is in the proper condition, he is anæsthetized by one assistant, while the other pays the strictest attention to the injured part. First, turpentine is freely used to remove the grease, etc., which in so many cases literally covers the wound and adjoining skin. The condemned part is thoroughly douched with a 1-to-1000 solution of bichloride of mercury and wrapped in a wet bichloride towel. After this, a large area is lathered with warm water and green soap, and shaved. Then the parts are scrubbed, first with alcohol, and, finally, 1-to-1000 bichloride solution. While these preparations are going on the nurses are attending to the sterilization of the instruments, dressings, etc. It is hardly necessary to say that hands, sponges, in fact, everything in the slightest way connected with the operation, must be immaculate.

By means of elevation and an Esmarch bandage, the limb is made bloodless. Here let me say, that many of our cases have had great damage done to the tissues, when they arrive, by strings or knotted handkerchiefs very roughly applied. This damage has been much less since the railroad men, and especially those of the Lehigh Valley Railroad, received instructions in applying tourniquets, etc., by Dr. Estes in one or two public meetings.

As to the different methods of operating, we never transfix our flaps. Skin-flaps are invariably used, and in all cases, except in a few amputations of the forearm and lower third of the leg, the antero-posterior flap is the one selected. In the latter situation we have been unusually successful with lateral skin flaps, and by means of them drainage is always assured without a counter-opening. After the bone or bones are sawn through, the next most important thing is to be sure that all bleeding vessels are ligated. Particular stress should be laid on checking hæmorrhage, as it is too often hurriedly passed over. Take a little more time, and either twist or ligate everything, even the smaller muscular branches, which may be seen oozing. Owing to great care in this particular, we rarely have any bleeding when the Esmarch is removed, unless it be slight oozing from the end of the bone.

After the edges of the bone have been trimmed and the nerves cut short, the wound is thoroughly douched with 1-to-1000 bichloride solution. Next, two or three deep silver sutures are passed perpendicularly to the long axis of the bone through the cut muscles. This is particularly useful in thigh amputations; it prevents to a certain extent retraction of the muscles, and in this way gives a more rounded and useful stump. The wires are fastened by means of small wooden pegs. Drainage being provided for by means of one long or two short rubber-tubes, the line of incision is closed with interrupted silk and continuous catgut sutures. The line of incision is now covered with gutta-percha protective, which has been sprinkled with iodoform. The regular Lister dressing is then applied, *i. e.*, iodoform and bichloride gauze, and the whole is covered by one or two carbolized jute pads.

The patient is now carried to the ward, where hot cans are applied, and an order is given for him to have several doses (one-half ounce each) of black coffee as soon as he can swallow.

The primary dressing is allowed to remain for nine or ten days, unless there should be a rise of temperature or oozing, when the wound is immediately re-dressed. The sutures and tubes are removed, as a rule, between the sixth and the tenth day. If there is any gaping of the wound, it can generally be overcome by adhesive strips and tight bandaging.

I will now give in figures the results of all these apparently small, but yet most valuable, suggestions. In the one hundred cases reported there were only seven deaths following amputation, or a percentage of ninety-three recoveries. Two of the seven fatal cases were operated upon during shock. The five other cases died from exhaustion, following loss of blood which had previously taken place. The total number of days spent in the hospital by the ninety-three cases which recovered was 2115; average number of days for each patient 22.6. Seven amputations were for disease, with no deaths.

Amputation of the forearm, lower third, antero-posterior flaps	13
" " " upper " " " "	3
" " " middle " " " "	4
Deaths none. Total	20
Amputation of the arm, upper third, antero-posterior flaps	1
" " " lower " " " "	4
Deaths none. Total	5
Amputation of the thigh (long anterior, short post. flaps), lower third	13
Amputation of the thigh (long anterior, short post. flaps), middle third	8
Amputation of the thigh (long anterior, short post. flaps), upper third	3
Deaths 5. Total	24
Amputation of the leg, lower third, lateral flaps	9
" " " " " anterior-posterior flaps	15
" " " middle " " " "	8
" " " upper " " " "	4
" " " " " long " "	2
Deaths 1. Total	38
Amputation (Syme's) of the foot	4
" (Chopart's) of the foot	1
" of the shoulder-joint	4
" " knee-joint	3
" " hip-joint (Dieffenbach's)	1
Deaths 1. Total	13
Sum total of all cases	100
" " " deaths	7

Besides these single major amputations, the following synchronous amputations were performed:

Double synchronous major amputations	10	Deaths	3
Triple " " "	2	"	0
	12		3

OBSERVATIONS ON THE USE OF KOCH'S LYMPH IN SIXTEEN CHILDREN.

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AT the present writing I have employed Koch's lymph in seventeen cases. Sixteen of these cases were children of various ages, from nineteen months to sixteen years. These sixteen cases form the basis of this report. Two of them are under observation at the New York Infant Asylum, the others at the St. Joseph's Orphan Asylum. One decided advantage of treatment at the latter institution is due to the circumstance that the children will remain under surveillance for a long time, and that the developments of the lymph-treatment are thus reasonably sure to be seen. In ordinary hospitals, patients generally remain but a short time, and their subsequent history is often entirely a matter of speculation. Treatment by Koch's lymph is of such recent origin, and some of its results are so surprising, that for some time to come every case will be of more or less interest. But after temporary manifestations shall have been studied on a sufficiently large scale, then its more lasting effects, if it has any, will demand our attention. Preliminary notes on eight of these cases were published in THE MEDICAL NEWS of January 3, 1891.

A few words as to the selection of new cases are in place here. I have not selected any patients with readily demonstrable phthisis. The lymph has been employed by others in hundreds of such cases. That they show a febrile reaction after inoculation is now known. Whether they can be cured remains to be seen. But there is a large class of cases that are merely "suspicious." Strumous children, strongly tainted by heredity and predisposed by early environment, but without signs of already existing consumption, form no mean proportion of the inmates of many orphan asylums and similar institutions. Now, if the Koch fluid is really a sure test for tuberculosis of all kinds, then children that react are already tuberculous, while those without reaction should be considered free from the actual disease. There ought to be few, if any, exceptions to the proper working of such a rule if the doctrine of Koch is to stand. Cases with merely premonitory manifestations, even if thus shown to be already affected, should likewise be more amenable to treatment than those of a more positive and advanced kind.

In a general way, I have found that during the period of febrile reaction the children are certainly sick. But even with a temperature of nearly 106° F., and a correspondingly rapid pulse-rate and respiration, they seem more alert, less profoundly affected, than in any morbid state known to me which is accompanied by similar constitutional disturbances. It is true the pulse is at times quite feeble, but I have not yet seen anything approaching dangerous collapse. Severe headache appears to be the most common symptom, and next to that the development of cough. An exanthem resembling scarlatina or measles, and conjunctival injection have been noticed several times, but vomiting has been infrequent, and diarrhœa has not been complained of.

Children appear to bear the lymph well enough, and tolerance to increasing doses is seen in them just as in adults. They also recover from the prostration incident to reaction in a surprisingly short time.

For the present I have adopted the rule to give at the first inoculation 0.00025 gramme of the fluid, even in children more than ten years old. The reinoculations are increased to 0.0005 gramme, or even 0.001 gramme, according to the intensity of reaction. The only other general observation which I wish now to record, is that the febrile reaction may be postponed for twelve or even eighteen hours, and that it may last for two entire days.

The following brief notes of the cases will serve to illustrate these remarks:

CASE I. (*Of previous report.*) *Strong hereditary predisposition to phthisis.*

December 30. Sixth inoculation of 0.003 gramme. Temperature rose to 101.8° F.

January 2. Seventh inoculation of 0.004 gramme at noon. In nine hours the temperature was up to 102.4° F., and at 11 P.M. it was 103.4° F. Intense headache.

3d. Slight cough has developed. Temperature rose to 101° F. in afternoon, but subsided to 99° F. by 9 P.M.

5th. Eighth injection of 0.0045 gramme. To-day for first time fine crepitant râles are heard over left, upper posterior part of chest. Painful redness at site of last injection.

6th. Redness fading, very little local pain left.

8th. Her only sister having just died of phthisis, no injection was made, although temperature was normal.

9th. Ninth injection of 0.005 gramme. Reaction to 100.4° F.

10th. A few râles (finely crackling) heard on deep respiration in front on left side at apex.

11th. Temperature 98.4° F. in morning. Tenth inoculation of 0.006 gramme. Temperature rose to 100.4 F.

12th. To-day temperature remained almost stationary at 100.5° F. Her appetite is at present better than before treatment was begun.

CASE II. (*Of previous report.*) *Ozæna scrofulosa, and lymphadenitis of neck.*

December 30. Sixth injection of 0.003 gramme. Temperature rose to 101° F.

January 2, 4, and 6. Injections up to 0.005 gramme. The cough, which was so conspicuous a feature after the first few injections, is much less now. On the right side of the neck the glands (excepting one the size of a small walnut) are scarcely appreciable to the touch. On the left side they are smaller and harder than before, but still quite large. Reaction to 103° F.

8th. 0.0055 gramme injected. Very slight reaction. Temperature 99.8° F. Ulcers healing under crust.

9th. Injection of 0.006 gramme. Reaction to 102° F. Pain in back. Nose looks swollen; puffy redness of cheeks.

11th. Injection of 0.007 gramme. Temperature rose to 103° from 98.4° F. in the morning. Felt "sick all over" several hours after injection.

12th. Erysipeloid swelling about nose—*i. e.*, site of ulceration. All glands rather smaller; they show no local tenderness or other signs of inflammatory reaction.

CASE III. (*Of previous report.*) *Hip-joint disease.*—Re-inoculations December 30th, January 2d, 4th, 7th, and 10th, up to 0.004 gramme. On January 2d, temperature rose to 104.4° F. in ten hours after injection. The joint was more sensitive to manipulation after first few injections, is less so now. There is greater mobility of joint. The reactions are much less severe now, temperature only rises to about 100.5° F.

CASE IV. (*Of previous report.*) *Hip-joint disease.*—Only two inoculation made, 0.002 gramme each on December 30th and January 3d, as the temperature has not returned to the normal point, fluctuating between 99° F. and 100.4° F. Several large glands, only slightly tender, are found deep in the iliac fossa on the affected side. There is a slight bedsore. Child in extension apparatus.

CASE V. (*Of previous report.*) *Tubercular glands in neck and submaxillary region. Scrofulous affection of eyelids and nose.*

December 30. Injection of 0.001 gramme. Temperature rose to 102.4° F.

January 2. Injection of 0.0015 gramme. Temperature 98.4° F. at time. In ten hours it rose to 102.6° F. Desquamation of skin in shreds, exactly as in scarlet fever.

4th. Injection of 0.002 gramme. Slight reaction to 100° F.

5th. Temperature rose to 101° F. this P. M.—*i. e.*, late or postponed reaction.

6th. Injection of 0.002 gramme. Highest temperature 100.8° F.

7th. Temperature 100.2° F. in the morning, 99° F. P. M. The râles at apices less distinct to-day, but breathing harsh, expiration prolonged. Little cough.

8th. Injection of 0.003 gramme.

10th. To-day there are moist crepitant râles, mostly small over the entire left side, both in front and behind. This is a new symptom.

11th. Temperature 97.6° at 9 A. M. Injection of 0.0035 gramme at 11.30 A. M. At 7 P. M. temperature 103.6° F.; at 9 P. M. 104.2° F. Very nervous and restless at night. On leaving her bed was noticed to walk with decidedly staggering gait.

12th. Pulse small, 160 beats per minute. Conjunctivæ injected. Râles the same on left side, none on the right side. Temperature fell to 101.6° F., but rose again this P. M. to 103.0° F. This girl was very much emaciated before treatment, but is now gaining flesh. Appetite fair.

CASE VI. (*Of previous report.*) *Incipient phthisis.*

Jannary 1. Fewer râles. Expiration harsh and prolonged at apices. More dulness on right side.

2d. Injection of 0.003 gramme.

3d. Eruption like measles all over body, except legs. Some urticaria-like wheals. Temperature rose from normal to 104.8° F. in eight hours.

4th. Fewer râles. Rash fading.

5th. Still some rash. Injection of 0.0035 gramme. Followed by violent subjective symptoms. Intense headache, screaming with pain. Constant dry cough. Vomiting. In three hours the temperature went up to 100.8° F. At 6 P.M. it was 101.4° F.; at 8 P.M., 104.4° F.; at 9 P.M., 105.8° F.; at 10.30 P.M., 105.2° F.; at midnight, 104.2° F.

6th. Temperature gradually subsiding.

7th. Temperature still around 100° F.

8th. Temperature normal this A.M. Injection of 0.004 gramme. Temperature again quickly rose to 103° F. in three hours. At 5 P.M., 104° F.; at 6 P.M., 105.4° F.; at 7 P.M., 105.6° F.; at 9 P.M., 105.8°; at 11 P.M., 105.2° F.; at midnight, 105° F.

9th. Temperature 100.6° F., to 101° F. Pulse weak and rapid. Backache, headache. No appetite.

10th. Fine crackling râles all over right side, especially behind. Also more râles on left side—*i. e.*, extension of pulmonary process. Cough dry. Very slight expectoration. Highest temperature 100° F.

11th. Temperature normal this A.M. Injection of 0.0045 gramme. Temperature rose to 104.6° F., but no violent symptoms appeared.

12th. Temperature down to 98.4° F. No afternoon rise. Fewer râles. Less cough.

In Case VII. the inoculations were discontinued, as there was no further reaction after sufficiently large doses had been reached. According to Koch's doctrine, the condition of this little girl should, therefore, be regarded as at present "non-tubercular." This would accord with the fact previously noted, of her recovery from an attack of meningitis closely simulating the tubercular variety. This child has certainly not been made worse by the inoculations. Her general condition remains entirely unchanged. In the present stage of experience negative evidence may be just as instructive as that of a positive nature.

CASE VIII.[1] *Phthisical thorax; enlarged cervical glands; "suspicious" breathing at apices.*—Girl,

[1] Cases VIII. to XIV., inclusive, are the new cases at the St. Joseph's Asylum. Case VIII. of previous report is Case XV. of this one. Case IX. of previous report, being an adult case, is omitted, and Case XVI. is the new case at the New York Infant Asylum.

aged twelve years. Family history good. Is thin and delicate; very narrow and flat chest. The breathing at apices is harsh, but there are no râles of any kind. No cough. Chains of enlarged glands of neck, running down to supraclavicular region.

January 5. Injection of 0.00025 gramme. In six hours temperature rose to 101° F.

6th. A.M., temperature, 98.8° F.; 4 P.M., 102° F.

7th Injection of 0.0005 gramme. Temperature rose to 101.4° F. Scarlatinoid appeared over entire body.

8th. Rash present.

9th. Rash fading. Slight cough.

10th. Still a remnant of rash. Injection of 0.001 gramme. Temperature 99.4° F. only.

11th. Temperature to-day higher than yesterday, up to 101° F.—*i. e.*, postponed reaction. Rash has reappeared, but only on trunk.

12th. Glands in supraclavicular region smaller. No râles, but slight cough continues.

CASE IX. *Scrofulous ulceration; fœtid otorrhœa; cervical lymphadenitis.*—Girl, aged eight years. Lungs negative, no cough. Corneal opacities and various scars indicate former morbid processes. At present only slight ulceration of lip and nose. Chains of enlarged glands on either side of neck.

January 5. Injection of 0.00025 gramme. Temperature rose from 98.4° to 99.4° F.

6th. Injection of 0.0005 gramme. Temperature rose to 100° F.

8th. Injection of 0.00055 gramme.

9th. Injection of 0.001 gramme.

10th. Injection of 0.0015 gramme.

11th. Injection of 0.002 gramme. Temperature never rose above 102.8° F.

12th. Temperature 97.4° in morning. Corneal opacities are unmistakably less dense, otherwise no change. Scarcely any subjective symptoms.

CASE X. *Winter cough; suspicious breathing at right apex.*—Girl, aged eleven years. Has coughed every winter for a number of years. Right supraclavicular space retracted, expiration harsh and prolonged over this region. No râles. Small eater. Slight glandular chains at neck.

January 5. Injection of 0.00025 gramme. Cough increased; pain in chest. In six hours temperature rose to 101° F.

6th. Temperature at 11 A.M., 100° F.; at 4 P.M., 100.6° F.

7th. Injection of 0.0005 gramme. Temperature not above 100° F.

8th. Temperature 100.6° F.—*i. e.*, slight late reaction.

9th. Injection of 0.001 gramme. Temperature rose to 100.8° F. only.

10th. Has vomited a number of times. On left side below scapular spine râles have developed.

11th. To-day there are râles on right side also, near sternum.

12th. Injection of 0.002 gramme. Temperature rose from 98° to 99.4° F.

CASE XI. *Suspicious apices; hereditary predisposition to phthisis.*—Girl, aged fifteen years. Parents both died of consumption. One sister "delicate." Has coughed for eight years. Small eater. Paralytic thorax. Slight retraction at apices. Supraclavicular spaces sunken in during inspiration. Very few râles, apparently bronchitic. Pain over chest.

January 5. Injection of 0.00025 gramme. Temperature did not rise above 99.4° F.

6th. Temperature remained almost stationary at 100° F. all day.

7th. Injection of 0.0005 gramme.

8th. Injection of 0.001 gramme.

9th. Injection of 0.002 gramme.

11th. Injection of 0.0025 gramme.

12th. Injection of 0 003 gramme. A few râles are now heard, but there has been no marked febrile reaction, the highest temperature having been only 100.8° F.

CASE XII. *Aggravated pigeon-breast; ulcerative processes of lips and eyes; large cervical glands.*—Boy, aged ten years. Thorax deformed into a pronounced pigeon-breast. Thin, pale, delicate-looking. Lungs negative. No cough. Glands in left side of neck quite large.

January 5. Injection of 0.00025 gramme. Temperature rose to 100° F. in four hours. Nausea, pain in stomach, great malaise.

7th. Injection of 0.0005 gramme.

8th. Injection of 0.001 gramme.

9th. Injection of 0.002 gramme.

10th. Injection of 0.003 gramme. No noteworthy febrile reaction, highest temperature 100.4° F.; cough has come on, but no râles are heard.

CASE XIII. *Scrofulous ulcerations; lymphadenitis.*—Boy aged six years. Ulcerative processes of neck, chin, lips, and nose. All glands enlarged. Largest about the size of a cherry. Lungs negative.

January 9. Injection of 0.00025 gramme.

10th. Injection of 0.005 gramme.

11th. Injection of 0.001 gramme. Some of the ulcers covered with crusts. Some eczematous patches are now dry. Diffuse redness about them.

12th. Injection of 0.002 gramme. Redness noticed yesterday subsiding, Only slight febrile reaction to 100.6° F. so far. No cough.

CASE XIV. *Suspicious apices; phthisical thorax.*—Boy, aged thirteen years, brother of Case IX. Very flat chest. Retraction of supra- and infraclavicular spaces on both sides. Harsh apex-breathing. No cough. No râles. Superficial ulcerations about nose and eyes. Submaxillary lymph glands in left side almond size.

January 11. Injection of 0.00025 gramme. No reaction.

12th. Injection of 0.00055 gramme. Reaction to 101.8° F.

CASE XV. (*This is Case VIII. of previous report.*) *Tubercular lymphadenitis of neck.*

December 29. Temperature rose to 103° F. after injection of 0.0005 gramme.

31st. Injection of 0.001 gramme, with rise to 102.6° F. Cicatrix quite red. Child bright and playful; sleeps well.

January 2. Injection of 0.00175 gramme at 7 P.M Reacted to 102.6° F. by 6 A.M.

4th. Scar looks better, less bulging, less red. Injection of 0.0002 gramme, not followed by reaction.

5th. Temperature normal. Cicatrix no longer indurated. Redness almost gone.

8th. Injection of 0.002 gramme. No reaction.

10th. Scar has diminished fully one-third in thickness. Other glands smaller. Child seems well.

12th. Injection of 0.002 gramme.

CASE XVI. *"White swelling" of the knee.*—Child, aged two years, has had plaster bandage immobilizing knee-joint for weeks without benefit.

January 12. Injection of 0.00025 gramme. Moderate reaction.

CLINICAL MEMORANDUM.

SURGICAL.

Position and Fomentations in the Treatment of Strangulated Hernia.—On the morning of November 21, 1890, I was called to see a German woman, married, aged forty-two years, suffering from strangulated omental femoral hernia. The tumor was the size of an almond, very tender, and unyielding to the touch.

The hernia made its appearance at 4 P. M. on the previous day. While the patient was in a stooping position, one foot suddenly slipped from a board, when she felt a severe and lancinating pain in the region of the femoral ring.

After making an unsuccessful attempt at reduction by taxis under chloroform, I decided to try conservative treatment rather than hazard an operation with the very unfavorable surroundings.

Consequently, I had the foot of her bed elevated about fourteen inches, and ordered tobacco fomentations, as hot as could be comfortably borne, to be constantly applied to the tumor. I gave the patient ¼ grain morphine and $\frac{1}{120}$ grain atropine, hypodermically, and left her. On returning in six hours I found the tumor smaller, more yielding, and less tender to the touch.

Forty-eight hours after first seeing the patient the tumor had entirely disappeared, without any untoward symptoms except some nausea caused by the tobacco fomentations and morphine.

I have had excellent results from the same plan of treatment in severe renal colic that would not yield to morphine. In the use of tobacco for the relief of such cases as herein noted, it must be applied in quantities sufficient to secure its physiological effects. My custom is to use one-half pound of good smoking tobacco for each fomentation.

W. D. JONES, M.D.

RISINGS, NEBRASKA.

MEDICAL PROGRESS.

Ointment for Chilblains.—The *Weekly Medical Review* quotes the following formula for an ointment used by DR. MORROW in the treatment of chilblains:

℞.—Carbolic acid . . .	1 drachm.
Tincture of iodine . .	2 drachms.
Tannic acid . . .	1 drachm.
Simple cerate . . .	3 ounces.—M.

Apply to the affected parts two or three times daily.

Operative Treatment of Tubercular Peritonitis.—The Berlin correspondent of the *Lancet* (December 20, 1890) writes that at a recent meeting of the Public Health Society, FRÄNKEL exhibited a young man who had been cured of tubercular peritonitis by abdominal section. The patient had come under Dr. Fränkel's care some months previously, and was then extremely reduced, and had ascites, manifestly due to tuberculosis. A median abdominal section was made, and the ascitic fluid evacuated. As a result, the patient, when exhibited, looked well and strong, the wound had united, and there was no abdominal tenderness or other symptom of disease.

A Successful Pericardiotomy.—According to the *St. Louis Medical and Surgical Journal*, January, 1891, STOLL, of Warsaw, has reported a successful operation for purulent pericarditis. The patient was an exhausted and emaciated soldier, twenty-one years old. After the sternum was trephined the pericardium was freely opened at the level of the second intercostal space. Two months after the operation, examination showed that the pericardial sac was completely obliterated. This is said to be the fourth successful case on record.

Auscultatory Percussion in the Diagnosis of Abdomina Tumors.—ZUELZER (*Centralblatt f. d. Physiologie und Pathologie der Harn und Sexual Organe*) recommends combined auscultation and percussion in the examination of the kidneys and of abdominal tumors covered by a thick layer of muscle. Differences of sound incapable of recognition by ordinary percussion can thus be determined. A metallic vibrating sound is given by organs containing air such as the lungs and intestines. If we percuss over a solid organ, such as the heart and liver, or over tumors, or if we percuss below the solid mass and auscultate at the upper margin, marked interference with the sound-conduction is appreciated. In this manner we can map out the borders of organs or tumors with accuracy. To detect the boundaries of the bladder when filled with urine, the stethoscope should be placed over the intestines above the bladder during percussion.

In examination of the kidneys it is necessary to determine the position of the external and inferior borders. For this purpose the intestines should be as empty as possible. The stethoscope is placed upon the anterior abdominal wall, and percussion practised over the corresponding renal area, while the patient bends slightly forward. Percussion should be commenced at the level of the fifth or sixth lumbar vertebra over the spinous process, and is then continued outward. Over the bone the resonance is clear. Where the kidney is covered by the muscles of the back the percussion-dulness is most intense, the sound becoming clear when the percussion is carried beyond the borders of the organ.—*Journal of Cutaneous and Genito-urinary Diseases*, January, 1891.

Irrigation of the Colon in Dysentery.—DR. PETR S. KORYTIN (*Vratch*, No. 42, 1891) details his experience in the treatment of dysentery by the use of large enemata. Fifteen consecutive cases were treated by this method, of which but one died, the remainder making good recoveries. Six pints of water, at a temperature of 102° F., were used for each enema. The injected fluid was

usually retained for from five to ten minutes. In three catarrhal cases simple tap-water was used. In the remaining cases from ten grains to one drachm of crystalline carbolic acid were added to each enema, but the effects of the latter did not differ in any way from those of the pure-water enemata. The treatment caused a rapid decrease of abdominal distention and pain, tenesmus, and frequency of stools. Appetite and sleep soon returned, and the stools quickly became more solid, and free from offensive odor, as well as blood, mucus, and shreds, while the temperature fell to normal. In catarrhal cases improvement was more rapid than in diphtheritic cases. The good results are attributed by Dr. Korytin simply to the thorough cleansing of the large intestine.—*St. Louis Medical and Surgical Journal*, January, 1891.

The Treatment of Tinea Tonsurans.—In the treatment of this troublesome affection CARRERE, in an inaugural thesis, details the methods which have been practised at the Hôpital St. Louis by various physicians in attendance.

That of BAZIN consists in the removal of the hair of the affected part, in the application of lotions of corrosive sublimate of the strength of 1 to 250 and the employment of a parasiticide ointment composed of the acetate of copper, the iodide of sulphur or of turpeth mineral.

The treatment of VIDAL consists in rubbing of the affected part with the oil of turpentine and painting with tincture of iodine. Second, in the application to the scalp of iodized vaseline in the strength of 4 to 100, covering the head with a piece of rubber tissue or other impermeable substance.

BESNIER removes the hair for from 6 to 8 millimetres beyond the spot which is affected, and aids in the removal of the parasite by the use of a curette. After this he orders daily washings with soap, tar, salicylic acid or sulphur. Finally he applies a piece of mercury plaster over the part which is diseased.

HALLOPEAU orders the head to be washed with green soap every morning, and afterward that the following prescription should be rubbed into the affected area.

℞.—Spirit of camphor . . 6 ounces.
Spirit of turpentine . . 6 drachms.
Ammonia water . . . 1½ "

Half an hour after this iodized vaseline in the strength of 1 to 100 should be applied, and, as with the treatment of Vidal, a caoutchouc covering should be placed on the head. Another application of the iodized ointment should be made at night.

UNNA, of Hamburg, employs the following ointment under these circumstances:

℞.—Salicylic acid . . . . 30 grains.
Chrysarobin . . . . 75 "
Ichthyol . . . . . 75 "
Simple cerate . . . . 5 ounces.

This is to be applied to the head and a rubber or other impermeable cap placed upon the patient. After using this ointment for four days applications of 5-per-cent. ichthyol ointment should be employed, and at the end of the week this line of treatment should be followed for a second time.

QUINQUAND directs that the head shall be washed with soap and hot water, and the following lotion be applied with friction:

℞.—Biniodide of mercury . . 2½ grains.
Bichloride of mercury . . 15 "

These are to be thoroughly mixed in a mortar and dissolved in ½ ounce alcohol (90 per cent.), and distilled water 6 ounces. The part which is affected should be energetically scraped with a curette after the employment of this lotion, and a plaster made of biniodide of mercury, 2½ grains; bichloride of mercury, 15 grains, and simple cerate, 6 ounces, should be applied. After this application is discontinued the head is once more washed with soap, and frictions are again made with the lotion which has been named. This course of treatment is to be repeated until the cure is complete.

In some cases the following ointment has been found to act equally well with the mercurial ointment just named: chrysophanic acid, salicylic acid and boric acid, of each 30 grains.

Treatment of Acute Tonsillitis.—SURGEON HEHIR (*Indian Medical Gazette*, November, 1890), in cases of acute tonsillitis recommends the administration of pilocarpine to relieve the distress caused by the accumulation of tenacious pharyngeal mucous. One-eighth of a grain in a teaspoonful of water every two hours, or ⅛ grain hypodermically every four hours, until slight salivation is produced, is sufficient. Locally he uses repeated poultices and constant steaming by means of boiling water near the patient's head. Internally, tartar emetic in doses of $\frac{1}{16}$ grain to adults every two hours has given him more uniformly good results than any other drug, not excepting sodium salicylate. If any depression follows the use of the tartar emetic, which is unusual, ammonium carbonate or strophanthus may be given. Of stimulants he thinks port wine the best and believes that it has some local beneficial action upon the inflamed tonsils. Guaiac mixture is sometimes very useful in relieving the shooting pain often complained of during the act of swallowing. It is usually good practice to begin treatment by the administration of a mercurial followed by a saline purge. Dr. Hehir has repeatedly seen marked relief follow a simple puncture or small incision of the tonsil, and this should be done whenever the gland is greatly swollen. It is much preferable to the use of leeches in the submaxillary region. He believes that strong astringent gargles are of very little use during the acute stage, but that tepid antiseptic gargles may be beneficial.

Ointment for the Chloasma of Pregnancy.—

℞.—White precipitate . . . 1½ grains.
Purified oxide of zinc . . 4 "
Cocoa butter } of each . . 1½ ounces.
Castor oil }
Essence of rose, a sufficient quantity.

Apply this with gentle friction twice a day to the pigmented spots. In the morning it may be well to wash the parts with hot water and to apply an ointment composed of

℞.—Kaolin } of each 2½ drachms.
Subcarbonate of bismuth }
Vaseline . . . . . 1½ ounces.

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OF MEDICAL SCIENCE.

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SATURDAY, JANUARY 17, 1891.

VIRCHOW AND KOCH.

THERE is probably no one living whose opinions are listened to with the same respect as are those of Virchow, who has been so correctly called the "father of modern pathology." The statements of this eminent man are also particularly interesting when they concern the new method of treating tuberculosis, and become still more important when they seem in any way opposed to the almost ecstatic reports of the physicians who have used the mystic liquid in Germany and elsewhere.

The statements of Virchow, which are published in the *Extra* attached to this number of THE MEDICAL NEWS, show that a possibility exists of a sad curtailment of our hopes for the relief of the "white plague," and emphasize the fact that, do what we will, the mortality must go on unimpeded to a very great extent.

The fact that the bacilli greatly increase in numbers under the use of the anti-tubercular fluid has not only been noticed by Virchow, but by others, not the least of whom is Osler, of Baltimore. It would appear that about the Koch method there is being drawn, as with all new remedies when on trial, a constricting band of limitation which may perhaps only serve to outline its uses, or become still more tense, and destroy its life.

THE MEDICAL NEWS has done much toward keeping the profession in America in touch with this entire subject by reason of its several cablegrams, the abstracts from foreign journals, and the original studies made in the great cities of America which it has published and it can assure them of a continued activity and foresight which cannot fail to accrue to their benefit.

CURRENT LITERATURE.

WITH this issue of THE MEDICAL NEWS a new departure for the benefit of our readers is instituted. In addition to the Progress columns, which contain only those short articles which are intended for hurried reading, and general information, we will frequently publish more lengthy condensations of current literature taken from foreign journals and so translated as to contain all the important portions of a paper without the laborious verbosity of the French and German writers. Many such attempts have been made, but in instances not a few the material so published has been so wretchedly abstracted, and so lacking in evidences of judgment as to the essential portions of a paper as to be useless. The existence of an editorial page is often an excuse for foisting upon a subscriber much useless material and for this reason the pages usually so employed in the past in THE NEWS will be taken up with notes on current literature, unless editorial matter is of sufficient interest or value to displace them. By this new move THE MEDICAL NEWS will always be found full of value to everyone and will embrace not only topics of fleeting interest but become valuable as a copious work of reference.

Large Bequests to Charity.—The will of Mrs. Elizabeth Fogg, of New York, gives about half a million of dollars to the hospitals and asylums of that city, out of an estate estimated to be worth $2,000,000.

By the will of the late D. B. Fayerweather, five hospitals of the same city fall heir to about $100,000.

A Chinese Hospital in Brooklyn.—The articles of incorporation have been filed at Albany for a Chinese Hospital Association to be located at Brooklyn. Clergymen and physicians of that city chiefly constitute the board of directors. It will be exclusively for the use of Chinamen, and it is not expected to receive contagious cases.

The Hospital at Atlanta, Georgia.—On December 28th, the corner-stone of the Henry W. Grady Hospital was laid at Atlanta, Georgia, with elaborate ceremonies. The day was the anniversary of the death of Mr. Grady, and was purposely selected as a proper time for these exercises.

CURRENT LITERATURE.

SATURDAY, JANUARY 17, 1891.

CHLOROFORM IN TRACHEOTOMY.

IN a paper advocating the more extensive employment of chloroform in tracheotomy in children, based upon a series of eighty-seven observations, P. GEFFRIER makes the statement that whilst in England and America the administration of chloroform to children operated upon for croup has rapidly grown in favor, and is recommended in the standard text-books, only in exceptional cases is it so employed in France. He regards this as still more remarkable from the fact, that as long ago as 1883 Dr. Gouguenheim, in a paper read before the Surgical Society, stated that in tracheotomy in children, as well as in adults, chloroform is of service; that it does not complicate the operation or render the prognosis more serious; but, on the contrary, that under its use respiration frequently becomes more free and regular, and the appearance of the patient such as to give rise to the hope that the operation will not be necessary. Further, Dr. Gouguenheim thought that chloroform could be used in the paroxysms of suffocation in croup in order to gain time, and in this way render the necessity for tracheotomy less frequent. On the authority of these statements of Gouguenheim, Dr. Geffrier has employed chloroform anæsthesia in all of his cases of tracheotomy since 1887, observing the precaution to administer the chloroform himself.

He places about three grammes of the anæsthetic upon a pad, which is rolled in a towel and held over the nose and mouth of the child, the head of which is less extended than at the time of the operation, as it has been found that prolonged extension gives rise to marked disturbance of respiration. In a very few cases this amount of chloroform was sufficient, but usually two grammes more were required, and in some cases even four grammes, but rarely was more than this amount administered. A remarkable fact which he has noted is, that while in order to produce anæsthesia in ordinary operative cases from four to five minutes are required, in croup, as a rule, but one or two minutes suffice to produce complete anæsthesia.

In the larger number of Geffrier's cases (53 out of the 87) the chloroform was very well tolerated, the only unusual phenomenon observed being the occurrence of short respiratory pauses or periods of apnœa in about one-half of the cases at the commencement of the chloroformization. This condition, however, soon passed away, to be followed by regular and free respiration. Almost invariably consciousness returned at the close of the operation, owing to the small amount of the anæsthetic inhaled. Whenever there was delay in this reaction, tickling the larynx by a small feather passed through the canula instantly produced a reflex laryngeal cough, which resulted in the restoration of the respiratory function. In but 17 of the observations was the chloroform badly tolerated. In these cases there was more or less pronounced cyanosis with short, stertorous respiration, or even momentary arrest of respiration; and in 15 of the cases the operation was performed before complete anæsthesia was obtained. The following conclusions are reached by the author:

1. Chloroform is of undoubted service in tracheotomy in children.

2. It is not more dangerous in tracheotomy than in any other operation, provided that certain contra-indications are borne in mind.

3. The precautions to be observed are as follows:

(*a*) The operator should have prepared in advance, under his own observation, everything which may be needed during the operation.

(*b*) He himself should administer the chloroform, or have it administered by an experienced assistant, following with care the effects produced, and watching the respiration; if there be occasion, he should excite inspiratory movements by artificial respiration or by irritation of the skin (pinching, tickling).

(*c*) The inhalation of chloroform should be immediately stopped, and the operation rapidly performed if the condition of the respiration becomes disturbed. (Rapidly-increasing cyanosis: prolonged apnœa.)

4. As contra-indications to the employment of chloroform anæsthesia may be regarded:

(*a*) The appearance of progressive and complete asphyxia, and profound prostration due to the diphtheritic poison.

(*b*) An appearance of relative asphyxia decreasing in this order:

Marked cyanosis, without disturbance of expiration. Slight cyanosis, with disturbance of expiration.

As contra-indicating chloroform-anæsthesia should not be considered: Slight cyanosis without disturbance of respiration; the early age of the children (if tracheotomy is not contra-indicated by the age, the chloroform is not more so).

5. The chloroform appears to be rather better borne in cases in which respiration is established after one or more paroxysms of suffocation, than in cases in which it is established progressively without paroxysms.—*Revue de Chirurgie*, December 10, 1890.

TONSILLOTOMY AND HÆMORRHAGE.

DR. E. J. MOURE recommends for hypertrophy of the tonsils in children the removal of the organs by the tonsillotome when they are voluminous, jutting out between the faucial pillars, and impeding by their presence the entrance of air into the respiratory passages, and consequently presenting a serious obstacle to the development of the entire organism. In performing this operation, however, it is well to bear in mind the possibility of the occurrence of hæmorrhage, especially in children of the hæmorrhagic diathesis. If this complication occur, not only should gargles and applications be employed—preferably the latter (lemon juice, tannin, solution

of the perchloride of iron, alum, etc.)—but above all, the patients *should be prevented from sleeping during the hours immediately following the operation.* By observing this precaution, the swallowing of blood and the subsequent alarming vomiting of altered blood, accompanied with severe irritation of the gastric mucous membrane, will be avoided.

In the case of adults, Dr. Moure advocates the use of the thermo- or galvano-cautery, giving the preference to the former when it is possible to use it advantageously. He says: "With many of my *confrères* I have often practised tonsillotomy in the child and ignipuncture in both the adult and the child, and always the most perfect success has crowned my efforts. Very often I have reduced tonsils relatively voluminous in one or two sittings by using the thermo-cautery, and I avow that I have never seen patients who believed themselves cured, come to me demanding new treatment. Much more, I think that with the hot iron as much of the tonsil may be destroyed as is desirable, even behind the pillars, if that be necessary, which is not possible with the cutting instrument.

After performing the operation, he prescribes the following emollient and antiseptic gargle:

℞.—Bromide of sodium Borate of sodium	} of each	6 grammes.
Carbolic acid . . .		1 gramme.
Pure glycerin . . .		50 grammes.
Decoction of barley and marshmallow root . .		450 " —M.

This is to be taken during the day. The burned surface rapidly heals, usually without any complications. Occasionally on the separation of the eschar secondary hæmorrhage may occur, which can be controlled by astringent gargles and astringent applications.—*Revue de Laryngologie et d' Otologie et de Rhinologie*, December 15, 1890.

SPECIAL ARTICLES.

REPORT ON THE KOCH TREATMENT OF TUBERCULOSIS AT BERLIN.[1]

BY A. C. ABBOTT, M.D.,
ASSISTANT IN BACTERIOLOGY AND HYGIENE IN THE JOHNS HOPKINS HOSPITAL.

SOON after the publication of the article by Koch upon the effects on tuberculosis of the fluid discovered by him, came reports of the results of the treatment from many of the larger hospitals in Europe. The evidence was of such a nature as to render it important that steps be taken to give to our patients an opportunity to avail themselves of any benefit that might follow the employment of the agent in tuberculous troubles.

With this object in view the Board of Trustees of the Johns Hopkins Hospital decided to send me as their representative to Berlin; my instructions being to make every effort to study not only the clinical features of the method of treatment, but, if possible, to acquaint myself with the nature of the agent employed.

On the morning following my arrival in Berlin, there appeared in the daily papers the address of Minister v. Gossler, made in the Reichstag, on the preceding day. In this address it was stated that the composition of the agent discovered by Koch would be reserved as a government monopoly; not, however, for commercial purposes, but with the view to limiting its employment until its value was thoroughly established.

In a conversation which I had with Professor Koch himself, a short time subsequently, he said that his views were in accord with those of Minister v. Gossler, and he added that the reason for the secrecy was simply to confine the use of the material to the practice of competent observers until its value could be established. When this was accomplished, he hoped to publish a full account of his experiments, and of the technique employed in preparing the virus.

My time was given to the study of the clinical features of the treatment, and through the courtesy of Professors Leyden and Ewald, and Doctors Köhler, Westphal, and Klemper, I had all the advantages that one could wish.

From the cases that I saw in the Charité and Augusta hospitals I feel justified in concluding that the outlook for "surgical tuberculosis" is very favorable. In the lupus-cases particularly, one may say that a cure has been effected in some.

In cases of joint-tuberculosis the injections of the virus have not rarely been repeated until the systemic reaction practically ceased to appear, and still the local expression may have improved but slightly, or not at all. In one such case the joint-cavity was subsequently opened, and in it was found a mass of necrotic tissue containing tubercle bacilli. This tissue was free in the cavity, and had evidently been thrown off from a point on the wall of the joint which still presented the characteristics of tuberculous tissue.

In another case there was every reason to believe that the condition was identical with that of the joint to which I have just referred. At the operation, however, there was an absence of anything in the joint that would lead one to suspect the presence of necrotic tissue. But at one point on the cartilage was an old scar, evidently of tubercular origin, and it is not improbable that the irritation of and effusion into the joint may have resulted from the local reaction in this scar.

In joint-troubles of this character the best results may be expected from the action of the virus, combined with the treatment of the joint by the ordinary surgical measures.

[1] Abstract of remarks made to the Johns Hopkins Hospital Medical Society, January 5, 1891.

The employment of the agent in cases of laryngeal tuberculosis should be conducted with the greatest care, and the treatment should begin with even a smaller quantity of the agent than that ordinarily employed as the minimum dose for other diseases. The extreme congestion brought about in the tissues of the larynx as a result of the treatment is extremely dangerous, if not of a fatal nature.

As is well known, Koch has said positively that phthisical patients in whom the disease has slightly advanced can be cured by the systematic employment of the virus. In his experience such patients were, in a number of instances, pronounced cured after from four to six weeks. He claims further that patients in whose lungs cavities of limited extent exist may be very much improved, and indeed almost cured by this method.

I have not yet seen any of the cases which were reported as cured, though I have seen a number in which the tubercle bacilli were said to have disappeared from the sputum of the patients for longer or shorter periods of time. From my personal experience in the wards in which the pulmonary cases were being treated, I feel constrained to say that it is only with the greatest conservatism that one should express an opinion as to the result of the treatment. There is no doubt that many of these patients gave evidence of improvement, but for one to say positively that they were cured would, I believe, be, at present, a little premature.

The characteristic reaction of the tuberculous patients after injection of the agent begins to appear in from four to five hours after administration. As a rule, it is ushered in by a chill, which is soon followed by a rise of temperature, often to 104° or 105° F.; pains in the limbs; irritative cough; extreme lassitude; and not uncommonly vomiting. Less frequently a temporary icterus of a hæmatogenous nature has been observed, and not uncommonly there appears upon the breast and arms an exanthematous eruption closely resembling that of measles. The attack lasts usually from twelve to fifteen hours. Exceptionally a secondary, though less marked, rise of temperature is seen on the following day.

After the reaction has passed away, there is a conspicuous absence of anything indicating the acute attack through which the patient had passed but a few hours before.

The local reaction can, of course, be best seen in those cases in which the lesion is most superficial, and for this purpose lupus offers the most favorable field. In this group the selective affinity of the agent for tuberculous processes is astonishing. In a few hours after the injection, as the temperature rises, the lupus becomes reddened and swollen. This continues, until through the lupus-tissue there are spots of a brownish-red color. These spots, when sharply circumscribed and isolated, are not uncommonly surrounded by a pale zone, which is in turn surrounded by an area of intensely-congested tissue. The skin over the whole of the diseased area is tense, and from the ulcerating points a thin watery exudate usually escapes.

With the decline of the fever there is a diminution in the intensity of the local reaction, so that after two to three days the reddening and swelling have usually disappeared. The ulcerated spots and the parts from which there had been an exudation are now covered by a brown crust, and over the smoother portions of the diseased area small, loose, scaly patches may be seen.

It is important to observe that very small, isolated patches of lupus tissue, the presence of which may not previously have been observed, are frequently rendered apparent through the alterations which the agent effects.

Probably the most conspicuous feature in the action of the agent is its affinity for tuberculous tissue. Not uncommonly there appears after the first or second injection, hitherto unsuspected localized areas in the lungs which present physical signs not distinguishable from those accompanying small areas of tubercular infiltration.

In two cases which came to my notice I saw this result follow the injections. These patients were selected with great care as "control-cases." Their lungs were carefully examined, and from physical signs (no expectoration being present) tuberculosis was excluded. After the first injection there appeared in the apex of the right lung in the one, and in the apices of both lungs in the other, a condition which gave all the characteristic signs of incipient tubercular infiltration.

In certain cases in which there has been much loss of tissue, and in which the vessels of the lungs are exposed and their walls weakened, hæmorrhage is not an uncommon accompaniment of the intense congestion brought about in the vessels of the diseased area.

Of the rarer complications may be mentioned icterus of a hæmatogenous nature, temporary albuminuria, and diarrhœa in children.

To summarize then the conclusions which I was led to draw from the cases seen by me, it may be said:

(1) That the outlook in cases of surgical tuberculosis is good, particularly in those in which the disease is most superficially located.

(2) In the lung cases the outlook seems to be fair if the cases are treated sufficiently early. For advanced cases I think it would be premature to do more than speculate, in view of the existing evidence.

(3) The intestinal cases, so far as they have been observed, are unpromising.

REVIEWS.

DUST AND ITS DANGERS. By T. MITCHELL PRUDDEN, M.D. New York: G. P. Putnam's Sons, 1890.

OUR rapidly-increasing knowledge concerning the growth of the lower forms of life and their relation to disease has rendered it necessary that the profession should have some small book which they can place in the hands of their patients when inquiries are made as to the care which should be taken in regard to the inhalation of dust of various kinds.

Dr. Prudden's book possesses two advantages: It is written in a popular vein, and yet does not descend in the least to the informalities which so frequently mar medical books for popular use. The other advantage which it possesses lies in the fact that its author is one who, from his close study of the subject, is quite as well qualified to write a book for the profession as for the laity, and his statements are to be received in consequence with the fullest confidence.

SOCIETY PROCEEDINGS.

PHILADELPHIA ACADEMY OF SURGERY.

Stated Meeting, December 4, 1890.

J. EWING MEARS, M.D., IN THE CHAIR.

DR. DE WILLARD FOREST reported the following case of

TREPHINING OF THE SKULL: OTITIS MEDIA: TUBERCULAR MENINGITIS.

M. K., aged four years, of healthy parentage, without ascertainable tuberculous taint from parents or grandparents, all of whom are living.

At the age of eighteen months she had an attack of pneumonia, which, however, left no impairment of the lung. Had suppurative otitis at the age of two and a half years. At the age of three years she had erythema nodosum on the anterior part of the legs. Three months ago she had an attack of diphtheria, followed by right cervical adenitis, which did not advance to suppuration, and the induration nearly disappeared after a few weeks at the seashore.

About this time the right ear, which had discharged for two months one year previously, showed a few drops of offensive pus oozing from the meatus daily. The child's general health was excellent, and all her hygienic surroundings were good.

The only known injury of the head was a fall from a bed about six weeks previously, but the blow was not even sufficient to arouse her from sleep. The weather, early in May, 1889, was unusually hot, and the child complained greatly of the sun. Previously she had been quiet and cheerful, but at this time she became peevish, irritable, and sleepy. The temperature was normal, the pulse 90.

When seen by Dr. Shellenberger, her tongue was heavily coated and stomach irritable. Vomiting had occurred on two or three occasions, but was at once controlled by the use of peptonized milk, and it never recurred. There had been no constipation, and the bowels were easily moved by one dose of calomel and compound liquorice powder, and all through the course of the disease there was no further constipation. There was pain at the top of the head only, and her cries were fretful rather than shrieking.

A week later when Dr. Willard saw the patient with Dr. Shellenberger, there had been no recurrence of the vomiting or constipation. There was no crying out, only an increase of mental heaviness and an indisposition to be disturbed. There was considerable pain at the top of the head, but there had been no convulsions, strabismus, twitching, or rolling of the head. Her only expression of pain was, "My head hurts me so." Her countenance was placid and without a frown. Under the use of bromides and iodides, with calomel, there was slight failure during the next few days, with increasing stupor and marked loss of strength. Her head was shaven and iodoform ointment applied to the scalp. There was no paralysis and the control of the sphincters was never lost. The pulse was less than 100 and the temperature 99°. The stupor steadily increased.

By the eleventh day from the onset of the disease the patient had become absolutely unconscious; she was unable to swallow; the stupor increased and death was imminent. The slight discharge from the right ear furnished the only indication for even a possibility of relief by surgical means, but as the membrana tympani was found to be perforated, as ascertained by passing water through the nose from the auditory canal, it was decided to give the child her only chance, in the face of rapidly-approaching death, by attempting to reach any possible focus of meningeal irritation that might exist. There was no œdema and no tenderness over the mastoid. The only hope of avoiding speedy death seemed to be in reaching a collection of pus that might exist over the petrous portion of the temporal bone. The undoubted evidences of otitis media, of long standing, made such a collection possible.

Dr. Agnew was called in consultation, and he fully agreed as to the justifiability of the attempt, since the child was dying and no medical measures offered any possibility of relief. It was thought that relieving pressure on the brain by removal of serum or pus might yield temporary benefit at least.

Operation, May 27, 1889: The shaven scalp was rendered thoroughly antiseptic, and the instruments, as well as the hands of the surgeons, were similarly treated. The scalp was raised by a semicircular flap, with the base upward, three-fourths of an inch above the summit of the right auditory meatus and an equal distance behind it. A point as the centre of the proposed opening in the skull had been marked with a drill, and this brought the opening well above the lateral sinus. A three-quarter-inch trephine was used. The skull was so thin that it required great caution in the use of the instruments, and only a few turns of the handle of the trephine were made before the dura was reached. This extreme thinness of a child's skull should be carefully considered in all trephining operations. The button which was removed, and which Dr. Willard exhibited, is almost thin as paper.

On opening the dura, there was marked bulging into the opening, but no signs of pus were present. The arachnoid was congested and opaque at various points, but nowhere presented any pathological appearance. An exploring-needle was passed its entire length into the substance of the brain in the direction of the petrous portion of the temporal bone, and in six other directions, but each time failed to disclose any pus. The opening in the skull was enlarged by rongeur forceps until it was one inch in diameter, but no pus could be reached. There was considerable oozing of arachnoid fluid. By avoiding the spaces between the convolutions in the different punctures the hæmorrhage was slight, and no ligatures were required throughout the operation. No signs of injury or depression were found.

The dura was sutured in position with catgut, and the flap was loosely stitched. As the object was to relieve pressure the bone was not replaced, although it had been carefully preserved in a warm antiseptic solution. Catgut drainage was used, and thoroughly antiseptic dressings were applied.

The child rallied well. The temperature several hours later was 102°, the pulse varied from 100 to 140, and the respirations were 38. The child aroused decidedly, although she did not become fully conscious. Swallowing, which had been impossible before the operation, was now accomplished with ease, and the stupor was much less marked.

From the copious notes taken by the attending physicians and two skilled nurses in regard to the progress of the case, Dr. Willard read the following extracts.

There was no vomiting; the bowels were moved two or three times daily, and peptonized milk was well borne. Urine was passed freely at all times, but never unconsciously until within the last forty-eight hours of life. Bromides, iodides, and calomel were continued. The pulse on the first day was 132, respirations 36, temperature 100°. On the evening of the second day the temperature rose to 102°. On the morning of the third day it had fallen to 99°, and rose again in the evening to 101°. On the following morning it had fallen to 98.8°, at which time the pulse was 100 and respirations 28.

Up to this time the child has been doing exceedingly well, but in the afternoon of the third day the temperature rose to 102°, with increased restlessness and weakness. The wound was, therefore, opened. The flap had thoroughly united, except at the point of emergence of the catgut drain, where a drop of pus apparently indicated an accumulation beneath. A portion of the flap was accordingly forcibly re-elevated, but no pus was discovered. This action, the speaker now thinks, was an error. The wound was healthy, and there was no redness or signs of inflammation. A small rubber drainage-tube was inserted beneath the flap, and the under surface of the flap was washed with 1-to-4000 sublimate solution. Consciousness returned to a slight degree after this. On the third day the patient easily turned on her side and slept quietly most of the time. Respiration was moderately rapid, and although not fully conscious she was cognizant of surrounding events.

On the fourth day the temperature rose to 102.4°, reaching 100° as its lowest point during the day. The pulse was 124, and respirations 40. The child had convulsive movements and became much weaker. The convulsions increased in severity and frequency until the fifth day, and, at times, continued from thirty to forty minutes. The face was flushed; respiration urgent and jerky, with much rattling of pharyngeal mucus. The right thumb was firmly flexed on the hand, and the fingers were rigidly flexed. The elbow was rigidly extended, and the right arm moved convulsively. The left arm was almost constantly in motion with the following rapid series of movements: First, the thumb was flexed, then the fingers; then there was strong and excessive pronation. Instantly the arm was then carried outward and upward with a circular movement, then downward along the side of the head, over the ear, and down the anterior part of the chest, thus describing a perfect circle, the forearm being largely in a position of pronation. This rolling movement was repeated fifteen to twenty times, when there would be a cessation of from five to ten minutes, sometimes of sixty minutes. On account of the continuance and character of these muscular movements, Dr. Horatio C. Wood was called to see the patient in consultation to ascertain if any definite focus of irritation could be reached. The knee was bent and a restless kicking motion was kept up for from five minutes to an hour; only occasionally would there be quiet sleep. The pupils were slightly dilated, and there was no strabismus. The left pupil did not respond to light, and the right but slowly. There was slight frothing from the mouth. The pulse was feeble—110—and sometimes was lost at the wrist. The temperature was 103.2°. When the wound was opened a small hernia cerebri was found, and some softened cerebral substance escaped, but there was no pus. The hernia cerebri increased in size, and there was oozing of softened cerebral tissue. During the dressing one or two vessels bled freely, but the hæmorrhage was controlled by hot water. A finger was carried into the opening in the skull and cautious investigation was made downward toward the petrous portion of the temporal bone, but no pus was found. Nitrite of amyl controlled the convulsions slightly. Under the influence of bromide and chloral the convulsive movements had lessened, save those of the fingers, which were rigid and permanently fixed. The fingers of the right hand were less rigid than those of the left hand. The right leg was flexed at the knee and restless.

An exploring-needle was passed into the brain-substance toward the centre, from two positions, but no pus was found. The convulsions were less severe than in the morning, and deglutition, which was then impossible, was now easily performed. The face was colorless and pallid, and respiration had almost ceased. The pulse became weak and feeble, being about 200 a minute, and the child died on the following day, six days after the operation.

Post-mortem examination nine hours after death: At the site of the operation there were no signs of pus, but there had been sufficient loss of cerebral substance to make a cavity beneath the opening in the skull. The brain-tissue surrounding this was softened, but not purulent. There was much congestion of the meninges, evidently from local cerebritis. Scattered over the membranes, at various points, but especially over the base of the brain and the medulla, were disseminated points of tubercle, some of them the size of pin-heads, but there

were no deposits on either cerebral hemisphere, or in the longitudinal fissure. There were no indications of cerebritis, except the congestion surrounding the wound. There was no pus in any portion of the brain. Neither the petrous nor the mastoid regions showed any evidences of inflammation or disease. The symptoms were evidently due, therefore, to tubercular deposits; yet the ordinary symptoms of tubercular meningitis were almost absent throughout the entire course of the disease. The local cerebritis surrounding the site of the operation showed that the procedure had not been a harmless one, although done on the strictest antiseptic principles. Death was probably delayed five or six days by the operation.

The operation of trephining was undertaken as an almost hopeless attempt to discover some possible cause of the meningitis. The child was rapidly approaching death, and medical measures offered no hope. The existence of long-standing otitis media rendered the presence of temporal osteitis very probable, although there had been no symptoms of mastoid disease. The patient's life was undoubtedly lengthened a few days by the relief of pressure, and in the almost entire absence of any symptoms indicating tubercular meningitis it was not strange that the physicians should have searched most earnestly for some acute exciting cause of inflammatory trouble.

In the present condition of brain surgery it is wise, Dr. Willard said, to report all failures as well as successes, in order that the accumulated evidence may finally give us the proper limitation for operative interference for disease within the cranium.

In discussing this paper, DR. JAMES COLLINS said that he was much pleased to hear the report, and thought that in many cases of ear disease such an operation would be proper. He has performed one or two similar operations, but in traumatic cases. He operated in a case of hæmorrhage, and removed a clot which was pressing upon the brain; the patient recovered. But whether brain surgery will enable us to anticipate the ravages of tubercle is still a question.

DR. JOHN B. DEAVER said that the piece of bone exhibited was certainly very thin, and, in contrast with this, he mentioned the case of a child with an intracranial aneurism of the arterio-venous type which he recently operated on, and in which the skull was quite as thick as an adult skull.

The diagnosis of brain-abscess, he said, is certainly often difficult. He recalled the case of a child who, while throwing an umbrella into the air, was injured by the end of one of the ribs entering the nostril and fracturing the ethmoid bone. Symptoms developed pointing to brain-abscess. The patient was trephined, but no abscess was found. A second operation was also done without finding the abscess. The autopsy showed a large abscess in front of the fissure of Rolando, with a sinus extending to the wound in the nostril. He could readily see how a case of tubercular meningitis with anomalous symptoms might lead the surgeon to suspect abscess resulting from ear disease.

In closing the discussion, DR. WILLARD said that, as stated in the paper, the operation was undertaken as the only possible means of saving the child's life. The presence of suppuration of the ear for two years, with perforation of the membrana tympani, gave the only possible clue to a surgical cause. There were no evidences of mastoid disease, but there was a possibility that the petrous portion had been perforated, and that a collection of pus had formed at this point, or that the meninges were becoming congested. There was such an entire absence of the ordinary symptoms of tubercular meningitis that he did not believe that tubercular deposit was present until the post-mortem examination revealed it.

DR. THOMAS G. MORTON then reported a case of

CONGENITAL (DOUBLE) EQUINO-VARUS, WITH EXCISION OF BOTH ASTRAGALI,

and exhibited casts, photographs, specimens, and patient. Linton B., aged eleven years, from Towanda, Pa., was brought to the Orthopædic Hospital, October 10, 1890, with talipes equino-varus—complicated variety.

History: At birth both feet were greatly distorted, and when a few weeks old tenotomy was performed and a plaster dressing applied. All treatment was abandoned at the end of a year, although the deformity had not been improved. At two years of age the child attempted to stand, but from that time to the present he has been unable to walk or even stand without some support.

On examination the limbs were found poorly developed, muscles greatly atrophied, feet rigid and could not be brought to a right angle with the leg. The astragalus was displaced forward. There was contraction of all the flexor muscles.

On October 16th, an incision was made from the external malleolus to near the base of the metatarsal bone of the fourth toe. The astragalus was found in front of the tibia and fibula and was subcutaneous; its presence in this position rendered flexion of the foot impossible. It was readily excised. The tendo-Achillis as well as the flexor tendons of all the toes was cut, and in the right foot the plantar fascia was divided. No vessel required ligation. A catgut drain was inserted, and, after the usual dressings, a right-angled tin splint was applied.

Four weeks subsequently the dressings were removed, when the wounds were firmly closed, and the lad was allowed to walk. On the thirty-fifth day he walked nearly a mile with no inconvenience.

In connection with this report Dr. Morton read the following letters—one from Dr. Hunt, the other from Dr. Forbes:

"PHILADELPHIA, October 16, 1890.

"To-day I was present at an operation for the removal of both astragali from the feet of a boy about eleven years old, for intractable club-foot when treated by ordinary methods. The operator was Dr. Thomas G. Morton; Dr. W. S. Forbes was also present. Dr. Morton was particularly desirous of the presence of Dr. Forbes and myself, as the necessity for this apparently serious operation has been questioned. I had seen it performed on very young children with favorable results, but as the displaced bones had nothing about them recognizable as astragali, I was anxious to have an older patient to examine in order to observe the effects of development in the abnormal position. That there was nothing normal recognizable in the cases of the young infants I

speak of is proved by the fact that, on one occasion, both bones were removed and were sent to that profound anatomist, Dr. Joseph Leidy. He did not know them, or even whether they were human. This is important, as bearing upon the fact of regarding them surgically in these cases as foreign bodies.

"In the case of the patient operated on to-day the deformity characteristic of a displaced and abnormal astragalus was particularly noticeable in both feet. In front of the external malleolus there was a marked projection more than one-half an inch in diameter, which, when covered by the skin, seemed both to sight and touch like the head of some displaced bone. The normal depression across the natural foot at this place was wanting, and the projecting bone made full flexion impossible. There were the usual callosities found on the feet of active boys of this age who have been afflicted with club-foot from birth.

"The boy was etherized and the bones were removed through one long incision in each foot. The Achillis tendons were divided, and, in one foot, it was necessary to divide the plantar fascia subcutaneously. The wounds were sutured, and the feet were easily brought into the right-angled position and secured upon tin splints.

"The removed bones were now examined. As in the young infant, there was little resemblance to normal bones, but there was enough to recognize what they were. One of them is sufficient for description: In the first place, it was abnormally long, and much the greater portion of it was in front of its true position. It was bent upon itself, and, as it were, partially rotated inward. The bending was across the body of the bone, and the above-mentioned peculiar projection in front of the external malleolus was the anterior lateral portion of the external face of the astragalus, which is normally marked by the articulating facet for the external malleolus. The true articulating facet was only partially formed. The neck and head of the bone projected obliquely across the foot from without inward. The bone seemed to have no support from the sustentaculum tali, but as the object was to save the foot this could not be positively ascertained; nor could the effect of the displaced bone upon the rest of the tarsus, for the same reason, be looked into. Sufficient, however, was found to demonstrate that in this class of cases of club-foot, the astragalus is not only useless, but very harmful. It is practically a foreign body, and should therefore be removed. Without its removal the sole of the foot cannot be brought to the ground, because the foot cannot be flexed to a right angle, as the displaced bone is a complete check to the joint. WILLIAM HUNT."

DR. FORBES wrote:

"The astragalus was displaced outward and forward, its long axis diagonally across the external dorsal aspect of the foot. Its interior posterior margin was placed in front of, and articulated with, the external malleolus (the fibula). The os calcis, the long axis of which is normally quite in accord with the long axis of the foot, had its long axis thrown from behind forward and outward and nearly at a right angle with the astragalus, as the latter was found as stated above. The outer margin of the whole foot was turned inward; the plantar aspect of the whole foot faced the foot on the opposite side.

"In the production of this astragalus-displacement all the flexor muscles have been more or less involved, the flexor communis the least."

DR. MORTON also exhibited another case illustrating severe congenital equino-varus. The girl, eleven years of age, was recently admitted into the Orthopædic Hospital, and was presented for inspection in order that the deformity of her foot could be compared with the deformity shown in the casts, taken before operation, of the feet of the boy previously exhibited. In the case of the girl there was no displacement of the astragalus, but the deformity was due to distortion of the soft parts, which can be cured by section of those tissues. The case was one of *uncomplicated* equino-varus, for the tarsal bones were normally situated, the intra-uterine paralysis having occurred late in gestation; while the first case was a *complicated* equino-varus, with displacement of the astragalus, which required excision of that bone. In the latter the paralysis occurred early in fœtal life, and the flexor muscles, by long-continued traction, forced the astragalus forward and inward, and entirely away from its normal position.

In the uncomplicated deformity, division of contracted tissues is all that is required; in the complicated, the astragalus must always be removed.

DR. MORTON then showed a

LARGE CALCULUS REMOVED BY SUPRAPUBIC CYSTOTOMY.

The calculus weighed 940 grains. The patient was sixty-five years of age, and had been suffering from inflammation of the bladder, with symptoms of stone, for many years. After the operation a soft catheter was retained in the bladder, as well as a rubber drain in the wound.

DR. WILLIAM G. PORTER exhibited a

DRESSING FOR FRACTURE OF THE CLAVICLE,

applied to a patient.

The dressing was devised by Dr. Arthur E. Spohn, of Corpus Christi, Texas. Dr. Porter thought that it carries out the indications in the treatment of this common accident better than any dressing with which he is acquainted. The dressing consists of an anterior splint formed of a piece of barrel-hoop, which is padded, the padding being thicker at the two extremities. The shoulder is drawn upward, backward, and outward, and the deformity reduced. The splint is then applied to the front of the chest and held in place by a posterior figure-of-eight bandage of the shoulders. All the crossings of the bandage are secured by stitches. The dressing is simple and cheap, and has the advantage of leaving both arms free. The only objection to it that Dr. Porter has noticed is that, if the bandage is applied tightly, it will cause swelling of the arms from interference with the circulation. In the case exhibited, the fracture occurred two weeks previously, and was the only case of true fracture of the clavicle that the speaker had seen since he became familiar with the dressing. He has also used it in one case of green-stick fracture of the clavicle, with satisfactory results.

In discussion, DR. MORTON said that experience might demonstrate that the apparatus exhibited is a useful dressing in certain cases of fracture of the clavicle. In all fractures of this bone it is safer to keep the patient

for at least a week or two in the recumbent position. In oblique fractures, he thought that the apparatus exhibited would be hardly sufficient to retain the fragments in position.

DR. JOHN B. ROBERTS said that it seemed to him the principal element in the treatment of fracture of the clavicle is fixation of the inferior angle of the scapula. He feels that in these cases the scapula must be rendered immovable, and kept so either by putting the patient on his back in bed, or by the use of some of the methods of making pressure upon the lower angle of the scapula that have been suggested. He could not see how a figure-of-eight of the shoulders with the anterior extension-splint pressing upon the deltoid muscles over the head of the humeri, can make enough pressure to prevent the scapula from slipping out toward the axilla and causing overlapping of the fragments. As he placed his hand on the clavicle in this case, he noticed considerable deformity, but whether this was due to overlapping or to callus he could not say.

DR. WILLARD noticed that as the man took off his shirt and replaced it, he moved his arm very freely and without the least expression of pain. The speaker never before saw a patient do this with so much ease at the end of two weeks after a fracture of the clavicle.

DR. PORTER thought that if anyone would make the experiment of having the shoulders drawn upward, outward and backward and secured with this dressing, they would find that it makes considerable compression and holds the shoulders firmly in position. As he had stated, he had had no extended experience with the appliance, but it seems to fulfil the indications very well.

(To be continued.)

CORRESPONDENCE.

TREATMENT OF ECTOPIC PREGNANCY.

To the Editor of THE MEDICAL NEWS,

SIR: Dr. Baldy's article on the treatment of ectopic pregnancy, which appeared in the last number of THE MEDICAL NEWS, contains two references to my work, which, as usual, are more or less glaringly inaccurate. In reference to Dr. Morris J. Lewis's case, he states that "a growing tubal pregnancy" was removed by Dr. Penrose, the truth being that a dead and partly macerated fœtus was removed. The other reference appears under the heading: "The harm done [by elecricity] in case of a mistaken diagnosis," and as it is the only instance of such "harm" cited by him, its flimsy character disposes of the claim. He here states that Dr. Bradford reported a case of mine in which two applications of electricity were followed by "alarming illness." The case was not reported by Dr. Bradford, but by myself, in the chapter on "Contra-indications" in my work on *Electricity in the Diseases of Women*. At the operation, which was followed by a fatal result, a malignant cyst of the broad ligament was discovered. The third error was in saying that this case was made any worse by the treatment, beyond a mere aggravation of the pain, which led me to examine more closely, and discover a cystic condition. The fourth error was in alluding to this case at all, which received intra-uterine applications, when he states, at the beginning of the article, that only the approved methods of passing the currents through the sac will be considered. In such methods the internal electrode is invariably placed in the vagina.

Yours truly,

G. BETTON MASSEY, M.D.

213 SOUTH FIFTEENTH STREET, PHILADELPHIA

IDIOSYNCRASY TO THE EXTERNAL APPLICATION OF IODINE.

To the Editor of THE MEDICAL NEWS,

SIR: In the Surgical Ward of the German Hospital, in the service of Dr. Deaver, there recently occurred a case of extreme idiosyncrasy to iodine.

The patient, an adult, suffering from osteitis of the cervical vertebræ, was painted with tincture of iodine just below the mastoid process over an area three inches square, only one application being made. Almost at once the patient complained of tingling and burning sensations over the whole body, and in less than three minutes the skin was everywhere covered with an intense erythematous rash. The patient now complained of ringing in the ears, throbbing in the head, and palpitation, and became very anxious. His temperature, half an hour after the application, was 96½° F., his pulse was 66. Respiration was normal. His lips were somewhat cyanotic in appearance. The rash began to disappear in the course of an hour. The eyes began to "water," and the lids were very much congested, as well as the conjunctiva and the eyeball. There was no vomiting or sneezing at any time. The region on which the application was made became much swollen. The temperature two hours after the first symptoms appeared was 100°, and the pulse at the same time 96. The eruption had entirely disappeared in three hours, although the conjunctiva remained reddened. The urine, examined half an hour and three hours respectively after the application, gave no reaction to the ordinary tests for iodine.

The patient gives a history of a similar experience some years ago after an external application of the tincture of iodine. Iodide of potassium had been administered to him in small doses for many weeks without the occurrence of bad symptoms.

The only treatment was the removal of as much as possible of the iodine that remained on the skin, and stimulation.

At the present writing, twelve hours after the occurrence, no symptoms of the intoxication remain.

M. V. BALL, M.D.,
Resident Surgeon.

KOCH'S METHOD AT ASHEVILLE, N. C.

To the Editor of THE MEDICAL NEWS,

SIR: At the present time it may not be out of place to report unfinished cases subjected to the new method of treatment for tuberculosis suggested by Professor Koch, and to state its effects as far as observed.

I began to use the method here immediately upon my return from Berlin on December 23d. Thus far, eleven cases have been treated by me at my private institution for diseases of the lungs and throat, and one case at the Mission Hospital in this city.

Of the eleven cases five had, besides the pulmonary affection, tubercular deposit in the larynx; in two of these, ulcerative processes existed, and the lung disease was beyond what may be called an early stage. Five other cases are in an earlier stage of pulmonary tuberculosis; the eleventh case is one of lupus vulgaris of ten years' standing, with progressive destructive tendencies.

The case at the Mission Hospital is also one of lupus that has lasted thirty-five years and is very severe, involving extensive portions of the nose and face. All cases are in fair physical condition and bear the reactions well.

Without going into the details of each dose, with its accompanying reaction, I have begun with only three-tenths of a milligramme for the initial dose in cases in which the larynx is involved, and in all but one case the reaction was well marked. In one case it was quite serious, inasmuch as so much swelling occurred in the larynx that the respiration was considerably impeded for several hours.

In the purely pulmonary cases the usual beginning dose of 1 milligramme was used; of these, one case has shown no reaction yet, 4 milligrams having been reached at the present time; in the meantime the expectoration is loaded with tubercle bacilli.

All these cases show more or less improvement; especially is this manifest in the larynx, where diminution of the infiltration and tendency to repair are unmistakable.

Increase in the moist sounds in the lungs, or an appearance of such where previously absent, has been quite constant during the reaction and for a day or two thereafter.

In the cases which have received the treatment for two weeks or longer there is evidence of other improvement, especially in the general condition of the patient; none are losing in weight, and several are gaining quite perceptibly.

In the pulmonary cases, after reaction, several days' intermission of the treatment is given, to allow them to recuperate fully, during which time the climatic treatment is carried out as before.

The lupus-patient at the Mission Hospital is doing very well, the ulcer is healing from the edges and granulation of the deep cavities has commenced. The upper lobe of the right lung in this case showed symptoms of infiltration, with cough and bloody expectoration, after the third injection of 10 milligrammes. No evidence of pulmonary disease existed before the treatment. In the lupus case in my institution the reaction is intense after one milligramme, and accompanied by an intense scarlatinous rash all over the body.

So far, then, the results are very satisfactory indeed, and with the advantage of climate as well we hope to be able to show all that is possible to accomplish under the most favorable climatic condition with strict and painstaking management in a special institution by the new method, which is now the absorbing theme of medical men and the public in general, even at this remote region.

Very respectfully,

KARL VON RUCK, M.D.

ASHEVILLE, N. C., January 10, 1890.

To the Editor of THE MEDICAL NEWS,

SIR: My attention has been called to the announcement of Mr. F. A. Davis, a publisher of Philadelphia, who claims to have in press the second volume of a work entitled "A Treatise on Materia Medica, Pharmacology and Therapeutics," my name being used as joint author with Dr. John V. Shoemaker. I desire to say that the use of my name in connection with Vol. II. of this work is unauthorized, and without my consent, and I am credibly advised that such publication can be restrained by legal means. For good and sufficient cause, my association with the publisher and reputed author was severed months ago, and of this, intending purchasers will take due notice. Very respectfully,

JOHN AULDE, M.D.

1910 ARCH STREET, PHILADELPHIA.
January 5, 1891.

NEWS ITEMS.

New York State Medical Association.—The Seventh Annual Meeting of the Fifth District Branch of the New York State Medical Association will be held in Brooklyn on Tuesday, May 26, 1891. All Fellows desiring to read papers will please notify the Secretary, E. H. Squibb, M.D., P. O. Box 94, Brooklyn.

Decrease of Insanity in 1890.—In New York State a considerable decline in insanity is indicated by the annual report of the Commissioners in Lunacy, just made to the Governor for the year 1890. The total number of reported cases was 523, as against 598 during the year previous, a reduction of more than twelve per cent.

The cities of New York and Brooklyn furnished about fifty per cent. of the new cases, and it is noted in the report that the decrease in insanity, in the two cities named, has been much more marked than in the other parts of the State. The ratio of new cases to population is constantly decreasing in the two cities; the same seems to be true of the State at large, but in a less marked degree. The report further shows that about sixteen hundred insane are at present in the State hospitals under the management of the Commissioners.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 6 TO JANUARY 12, 1891.

By direction of the Secretary of War, JAMES P. KIMBALL, *Major and Surgeon*, is assigned to duty at Fort Supply, Indian Territory, in Special Orders, No. 132, September 24, 1890, Department of the Missouri.—Par. 6, *S. O. 4, A. G. O.*, January 6, 1891.

By direction of the Secretary of War, CHARLES SUTHERLAND, *Brigadier-General and Surgeon-General*, will, as soon as practicable, repair to this city, and assume the duties of his office.—Par. 9, *S. O. 2, A. G. O., Washington, D. C.*, January 3, 1891.

APPOINTMENT.

SUTHERLAND, CHARLES, *Colonel and Surgeon.*—To be Surgeon-General, with the rank of Brigadier-General, December 23, 1890, vice Baxter, deceased.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING JANUARY 10, 1891.

RUTH, M. L., *Surgeon.*—Ordered to the U. S. S. "Newark," February 2, 1891.

RUSH, W. H., *Passed Assistant Surgeon.*—Detached from the U. S. S. "Saratoga," and ordered to the U. S. S. "Newark," February 2, 1891.

ASHBRIDGE, RICHARD, *Passed Assistant Surgeon.*—Ordered to the U. S. S. "Saratoga."